```
<110> Rosen et al.
  <120> 67 Human secreted proteins
  <130> PZ023
  <140> 09/363,044
  <141> 1999-07-29
  <150> 06/073,160
  <151> 1998-01-30
  <150> 06/073,159
  <151> 1998-01-30
  <150> 06/073,165
 <151> 1998-01-30
 <150> 06/073,164
 <151> 1998-01-30
 <150> 06/073,167
 <151> 1998-01-30
 <150> 06/073,162
 <151> 1998-01-30
 <150> 06/073,161
 <151> 1998-01-30
 <150> 06/073,170
 <151> 1998-01-30
 <160> 298
 <170> PatentIn Ver. 2.0
<210> 1
 <211> 733
 <212> DNA
 <213> Homo sapiens
 <400> 1
 gggatccgga gcccaaatct tctgacaaaa ctcacacatg cccaccgtgc ccagcacctg
 aattcgaggg tgcaccgtca gtcttcctct tccccccaaa acccaaggac accctcatga
                                                                         120
 teteceggae teetgaggte acatgegtgg tggtggaegt aagecaegaa gaeeetgagg
                                                                         180
 tcaagttcaa ctggtacgtg gacggcgtgg aggtgcataa tgccaagaca aagccgcggg
                                                                         240
 aggagcagta caacagcacg taccgtgtgg tcagcgtcct caccgtcctg caccaggact
                                                                         300
ggctgaatgg caaggagtac aagtgcaagg tctccaacaa agccctccca acccccatcg
                                                                         360
agaaaaccat ctccaaagcc aaagggcagc cccgagaacc acaggtgtac accctgcccc
                                                                         420
catcccggga tgagctgacc aagaaccagg tcagcctgac ctgcctggtc aaaggcttct
                                                                         480
atccaagcga catcgccgtg gagtgggaga gcaatgggca gccggagaac aactacaaga
                                                                         540
ccacgcetcc cgtgctggac tccgacggct ccttcttcct ctacagcaag ctcaccgtgg
                                                                         600
acaagagcag gtggcagcag gggaacgtct tctcatgctc cgtgatgcat gaggctctgc
                                                                         660
acaaccacta cacgcagaag agcctctccc tgtctccggg taaatgagtg cgacggccgc
                                                                         720
gactctagag gat
                                                                         733
```

<211> 31 <212> DNA

```
<210> 2
  <211> 5
  <212> PRT
  <213> Homo sapiens
  <220>
  <221> Site
  <222> (3)
  <223> Xaa equals any of the twenty naturally ocurring L-amino acids
  <400> 2
  Trp Ser Xaa Trp Ser
    1
  <210> 3
  <211> 86
  <212> DNA
  <213> Homo sapiens
  <400> 3
  gcgcctcgag atttccccga aatctagatt tccccgaaat gatttccccg aaatgatttc
                                                                            60
  cccgaaatat ctgccatctc aattag
                                                                            86
 <210> 4
 <211> 27
 <212> DNA
 <213> Homo sapiens
 <400> 4
 gcggcaagct ttttgcaaag cctaggc
                                                                            27
 <210> 5
 <211> 271
 <212> DNA
 <213> Homo sapiens
" <400> 5
 ctcgagattt ccccgaaatc tagatttccc cgaaatgatt tccccgaaat gatttccccg
                                                                           60
 aaatatctgc catctcaatt agtcagcaac catagtcccg cccctaactc cgcccatccc
                                                                          120
 gcccctaact ccgcccagtt ccgcccattc tccgccccat ggctgactaa tttttttat
                                                                          180
 ttatgcagag gccgaggccg cctcggcctc tgagctattc cagaagtagt gaggaggctt
                                                                          240
 ttttggaggc ctaggctttt gcaaaaagct t
                                                                          271
 <210> 6
 <211> .32
 <212> DNA.
 <213> Homo sapiens
 <400> 6
 gcgctcgagg gatgacagcg atagaacccc gg
                                                                           32
 <210> 7
```

	4010a tr.			3			
	<213> Hom	o sapiens					
	<400> 7						
	gcgaagctt	c gcgactccc	c ggatccgcc	t c			31
						•	
	<210> 8						
	<211> 12 <212> DNA						
	<213> Hom						
		o supromo					
	<400> 8						
	ggggacttt	c cc					12
	<210> 9						
	<211> 73						
	<211> /5						
	<213> Homo	sapiens				•	
						•	
	<400> 9		•				
			c ccggggactt	tccggggact	ttccgggact	ttccatcctg	60
	ccatctcaat	tag					_ 73
		•					•
	<210> 10		•		-		
	<211> 256						
	<212> DNA			•			
	<213> Homo	sapiens	•		•		
	100 10						
	<400> 10	attraa			*	•	
						tctgccatct taactccgcc	60
	cagttccgcc	catteteeg	: cccataacta	actaatttt	tttatttata	cagaggccga	120 180
	ggccgcctcg	gcctctgagc	: tattccagaa	gtagtgagga	qqcttttttq	gaggcctagg	240
	cttttgcaaa					3 33 33	256
				•			
	-010: 11						
	<210> 11 <211> 1079	•	•		٠		
	<211> 1079					•	
	<213> Homo	sapiens		•		•	
•	<400> 11						
	ggcacgagcc	aatttgccaa	ggttctaaag	gcttatgagg	tcctgaagga	gccaggcctt	60
			ggcctggttg				120
			gggctctgct				180
			cagttctgtg ttgatttggt				240 300
			cagctggtag				360
			gtagagctaa				420
9	gttgcttttt	cccagagtct	gatggcagtg	actgtgatca	agggaatctt	caccgccaca	480
ć	agtgcaggca	gcaggtgtgg	ttcaggtccc	ccccacccc	actgtgctcc	tttgaagcca '	540
ć	acgtgcctcc	ctcgcctcca	tactggaggg	acgacgcagg	ggagaacaga	gaagtgcttg	600
9	gccctaggat	tgaggcactt	gtttcctagc	ccgctgggtt	agggctggtg	caagcgaggc	660
2	accaccaca	atgaggetas	cactaccage	cgaatccggg	aactctgtta	acagttgtcc	720
ć	acagcagctt	tecetagaea	ctgtataaag gtacaatggc	ttgaaggaacc	aggacgagga	agtgacagg	780 840
ç	gactgtgact	ctggtgagga	ġgggtqaqca	gggaggttga	ttctctgatg	ttaactaagt	
	_				5 5		, , ,

```
ggcaaagtet caacegtget cagecetece ceteceaggg aagagaaaca aagattcaaa
                                                                         960
   gtaagcatga tactagtggg tttaccagtg tttcttccaa ggagacatat attttttaat
                                                                       1020
   1079
   <210> 12
   <211> 1932
   <212> DNA
   <213> Homo sapiens
   <400> 12
   cccgcagcag ctcccaggat gaactggttg cagtggctgc tgctgctgcg ggggcgctga
                                                                         60
   gaggacacga getetatgee ttteeggetg eteateeege teggeeteet gtgegegetg
                                                                        120
   ctgcctcagc accatggtgc gccaggtccc gacggctccg cgccagatcc cgcccactac
                                                                        180
   agggagcgag tcaaggccat gttctaccac gcctacgaca gctacctgga gaatgccttt
                                                                        240
   cccttcgatg agctgcgacc tctcacctgt gacgggcacg acacctgggg cagttttct
                                                                        300
   ctgactctaa ttgatgcact ggacaccttg ctgattttgg ggaatgtctc agaattccaa
                                                                        360
   agagtggttg aagtgctcca ggacagcgtg gactttgata ttgatgtgaa cgcctctgtg
                                                                        420
   tttgaaacaa acattcgagt ggtaggagga ctcctgtctg ctcatctgct ctccaagaag
                                                                        480
   gctggggtgg aagtagaggc tggatggccc tgttccgggc ctctcctgag aatggctgag
                                                                        540
   gaggcggccc gaaaactcct cccagccttt cagaccccca ctggcatgcc atatggaaca
                                                                        600
   gtgaacttac ttcatggcgt gaacccagga gagacccctg tcacctgtac ggcagggatt
                                                                        660
   gggaccttca ttgttgaatt tgccaccctg agcagcctca ctggtgaccc ggtgttcgaa
                                                                        720
   gatgtggcca gagtggcttt gatgcgcctc tgggagagcc ggtcagatat cgggctggtc
                                                                        780
   ggcaaccaca ttgatgtgct cactggcaag tgggtggccc aggacgcagg catcggggct
                                                                        840
   ggcgtggact cctactttga gtacttggtg aaaggagcca tcctgcttca ggataagaag
                                                                        900
   ctcatggcca tgttcctaga gtataacaaa gccatycgga actacacccg cttcgatgac
                                                                        960
   tggtacctgt gggtwcagat gtacaagggg actgtgtcca tgccagtctt ccagtccytr
                                                                       1020
   gaggeetact ggeetggtet keagageete rttggrgaea ttgacaatge catgaggaee
                                                                       1080
   ttcctcaact actacactrt atggaagcag tttggggggc tcccrgaatt ctacaacatt
                                                                       1140
   cctcagggat acacagtgga gaagcgagag ggctacccwc ttcggccaga actyattgar
                                                                       1200
   agcgcaatgt acctctaccg tgccacgggg gaycccaccc tcytagaact cggaagagat
                                                                       1260
   gctgtggaat ccattgaaaa aatcagcaag gtggagtgyg gatttgcaac aatcaaagat
                                                                       1320
   ctgcgagacc acaagctgga caaccgcatg gagtckttct tcctggccga gacygtgaaa
                                                                      1380
   tacctctacc tyctgttyga cccrrccaac ttcatccaca acaayggstc caccttcgac
                                                                      1440
  gcggtgatca ccccctatgg ggagtgcatc ctgggggctg gggggtacat cttcaacaca
                                                                      1500
  gaageteace ceategacee tgeegeetg caetgetgee agaggetgaa ggaagageag
                                                                      1560
   tgggaggtgg aggacttgat gagggaattc tactctctca aacggagcag gtcgaaattt
                                                                      1620
  cagaaaaaca ctgttagttc ggggccatgg gaacctccag caaggccagg aacactcttc
                                                                      1680
tcaccagaaa accatgacca ggcaagggag aggaagcctg ccaaacagaa ggtcccactt
                                                                      1740
  ctcagctgcc ccagtcagcc cttcacctcc aagttggcat tactgggaca ggttttccta
                                                                      1800
  gactcctcat aaccactgga taattttttt atttttattt ttttgaggct aaactataat
                                                                      1860
  1920
  aagggcggcc gc
                                                                      1932
  <210> 13.
  <211> 1827
  <212> DNA
  <213> Homo sapiens
  <400> 13
  caaactgcac gacatcgacg gcgtacctca cctcatcctc atcgcctccc gagacatcga
                                                                        60
  ggctggggag gagctcctgt atgactatgg ggaccgcagc aaggcttcca ttgaagccca
                                                                       120
  eccgtggetg aagcattaac eggtgggeec egtgeeteec egeceeactt teeettette
                                                                       180
  aaaggacaaa gtgccctcaa agggaattga attttttttt tacacactta atcttagcgg
                                                                       240
  attacttcag atgtttttaa aaagtatatt aagatgcctt ttcactgtag tatttaaata
                                                                       300
  tctgttacag gtttccaagg tggacttgaa cagatggcct tatattacca aaacttttat
                                                                       360
  attctagttg tttttgtact ttttttgcat acaagccgaa cgtttgtgct tcccgtgcat
```

```
gcagtcaaag actcagcaca ggttttagag gaaatagtca aacatgaact aggaagccag
                                                                          480
    gtgagtctcc tttctccagt ggaagagccg ggaccttccc cctgcacccc cgacatccag
                                                                          540
    ggacggggtg tgaggaagac gctgcctccc aatggcctgg acgggatgtt tccaagctct
                                                                          600
    tgttccccta acgtctcaac aggcgctcac tgaagtgtat gaatattttt taaaaaggtt
                                                                          660
    tttgcagtaa gctagtcttc ccctctgctt tctcgaaagc ttactgagcc ctgggcccca
                                                                          720
    agcacgggcc gggcatagat ttcctcttcc acaagtgccg cttttctggg caccttgaag
                                                                          780
    catcagggcg tgaaatcaaa ctagatgtgg gcagggagag kgttgcttac ctgcctgctg
                                                                          840
    gggcagggtt tcctgaaact gggttaattc tttatagaaa tgtgaacact gaatttattt
                                                                          900
    taaaaaataa taataaaaat ttaaaaaaat taaaaataaa aaaaaccaca gaaaacaact
                                                                          960
    ttacatgtat ataggtettg aagtgagtga agtggetget tittititt tittittt
                                                                         1020
    gctttttttt gctttttgta gaagagattg agaatggtac tctaatcaaa aataaagttt
                                                                         1080
    tgtagtggga ccagadatta cttacctgac atccacccc attccccctc atcctgctgg
                                                                         1140
   ggttgaaagt tccagacctg ctgtcgaggc cttgtgtttg tcagacaccc agtgtcctcc
                                                                         1200
   tgcaaggacg caactgtgag ctgaggtgtg agcctaggag cccaggaccc ctgaccccgg
                                                                         1260
   ccgctgctgc cagcctcaga aaggcaccca ggtgtgcagg ggagcacaca gggcccggca
                                                                         1320
   gcccccagga atcaaggata gggctaaggt tttcacctta actgtgaagg caggaggaat
                                                                         1380
   aggtgactgc ttcctcccgc ccttcacaga actgattctc acacactgtc ccttcagtcc
                                                                         1440
   agggggccgg ggctcaggag ccatgacctg gtgtctcctg cccaccctgg tcccaggtaa
                                                                         1500
   atgtgaatgg agacaggtat gagaggctgt cctcgtcttt gattccccc caaccccacc
                                                                         1560
   tegggeetea egaeggtget acetaagaaa gtetteeete eeaeeeeeg etageetggt
                                                                         1620
   cagtggtcag caaattggaa gaggatccga tgggagtgta aatgtgagac acaatgtctt
                                                                        1680
   gattatacct gtttgtggtt tagctttgta tttaaacaag gaaataaact tgaaaattat
                                                                        1740
   1800
   aaaaaaaa aaaaaaaa aaaaaaa
                                                                        1827
   <210> 14
   <211> 696
   <212> DNA
   <213> Homo sapiens
   <400> 14
   ggcacgaggt ggaggagaa ttťaacagtc ctctcatgca gacggagggt gacattcaaa
                                                                          60
   tgggagaatt tacttctgtg gtttgctact gtttcattct ttcccttatc attggtagtg
                                                                         120
   ttgttaggtg gcagggttgt ggggcagagt ggggtttcgc cctgggggag catatgtggc
                                                                         180
   agagggcaca ggaagatctg taagcaagag ggcatagcaa attaaatgac cacactgtca
                                                                         240
   ggaaggttga caggccaaag aaagatcagc teetecaaat etgetgaaet aacteteeee
                                                                         300
   tcgtagcccc agacacgttt tctcaatttg agcacaatat ccattactat ttcccgtact
                                                                         360
  gggtttcaat taaagagagt gagagtagaa agttcactgg tgtttggggg ttcatttatt
                                                                         420
tccaagcagg atgcaaatga aagggagccg tgggcacaga gttgtcatgt gtgtttttcc
                                                                         480
   tecetettet ttecatttee ttettgeaac etteceteea ettettgeea geeaceeage
                                                                         540
  acacccgtgt tcccaaagca aatgttttca wgtcttgaaa atccagttag ggtgaggaga
                                                                         600
  gaaggaaggt gataacatca tacctactga tgccccctag agatgaagct gtcctggggg
                                                                         660
  cacttaaggc ttgagggaag gatttacctt ctcgag
                                                                         696
  <210> 15
  <211> 1684
  <212> DNA
  <213> Homo sapiens
  <220>
  <221> SITE
  <222> (736)
  <223> n equals a,t,g, or c
  <400> 15
  gtatccgcga cgagctatcc gggaaagggc cgaatgcgat caaacctaat ccgcgagact
```

tgctaaggtt ctgtgctaca aattgatgtt tagataaact tcagtgaaat gactcttcag

60

```
gaattggtgc ataaggctgc ctcctgytat atggacagag tagctgtatg ttttgatgaa
                                                                         180
tgcaacaacc agcttccagt ttactacacc tacaagactg tggttaatgc tgcttctgaa
                                                                         240
ttatcaaatt ttctgctgtt acactgtgac tttcaaggaa ttcgggaaat tggtctctac
                                                                        300
tgccaacctg ggatagactt accetettgg attttaggaa ttctccaagt cccggctgct
                                                                        360
tatgtaccta tcgagccaga ttcaccaccg tcattatcaa ctcattttat gaaaaaatgt
                                                                        420
aatctaaagt atatcettgt tgaaaaaaaa caaattaata aatttaaate ttttcatgaa
                                                                        480
acattattga actatgatac atttacagtg gaacataatg acctagtgct cttcagactt
                                                                        540
cactggaaaa atactgaggt gaacttgatg ctaaatgatg gaaaagagaa atatgaaaaa
                                                                        600
gaaaaaataa aaagcataag ttctgagcat gtcaatgaag aaaaagcaga agaacacatg
                                                                        660
gatctgaggs taaagcattg cttagcctat gttctacata catcagggac tacagggata
                                                                        720
ccgaagattg tcagantgcc tcataagtgt atagtaccaa atatccagca ttttcgggta
                                                                        780
ctttttgaca tcacacaaga agatgttttg tttctgkytt cacctytgac cttcgatcct
                                                                        840
tctgttgtgg aaatatttct tgctctatca agtggtgcct ctctgcttat tgtaccaact
                                                                        900
tctgtcaagt tgctcccatc aaaattagcc agcgttctct tttcccatca tagagtgact
                                                                        960
gttttgcagg caacaccaac attgcttaga agatttggat ctcagcttat caagtcaact
                                                                       1020
gttttgtcag ccactacttc tettegagta ttagecettg gtggtgaage gtttccatca
                                                                       1080
ttgacagttc tcagaagctg gagaggagaa ggcaataaaa cacaaatatt taatgtttat
                                                                       1140
ggtatcacag aggtatcaag ttgggcgacc attwatagga ttccagagaa gactcttaac
                                                                       1200
tctactctca aatgtgaatt gcctgwacaa ctgggatttc cacttcttgg aacagtagtt
                                                                       1260
gaagtcagag atactaatgg cttcacaatt caggaaggca gtggccaagt atttttaggt
                                                                       1320
tgttttatat ttgttgattg ggaatttttt tttcaagaaa aatgatctga tgtgttaatt
                                                                       1380
ttattccttt cgtctttttc ttttgtctat ctcatgcttt tcagtgataa tttttattct
                                                                       1440
cattcatata gtcatgaaat accaaatgtt acaataatta tttcagataa taatgtctaa
                                                                       1500
cacattaata aaagtaattt agagactgta acttggacct tcatatttat atttatagcc
                                                                       1560
aaaattatat ttaatcagta gtctaagaat ttttttaatt ccataaattt taagaaataa
                                                                       1620
atttcatttt atctctgctt aaaaaaaaa aaaaaaaaa aaaaaaaaa aaaagggcgg
                                                                       1680
ccgc
                                                                       1684
```

```
<210> 16
<211> 1523
<212> DNA
<213> Homo sapiens
```

	(400) 10						
	cagacattgt	tagctactga	gtggcacatc	ttcagtacgc	atggattcgt	gggggactca	60
	ggcagaggta	aaagtgtgaa	acttttcagc	attacctaag	aagcaaaggc	tcaattttgg	120
	ctgcttcatt	cttatctctt	ctgccacagt	tctaacgtgc	ctgatctact	gagaccaagg	180
				tttaaacacc			240
_	agaggtcatg	ccctccctgg	aaccttcttt	tttattattg	gtctttggtg	gtgtacaaag	300
	agtattctga	agtatatctg	caaaaagcaa	aagcgaacct	gctatcttgg	ttccaaaaca	. 360
				attacaatag			420
				ccccatctga			480
				catttcacca			540
				atcagttcac			600
				gcctttatct			660
				ctgctggttt			720
	ctcgttgcct	tcctagagtt	ccttgttcgg	aacaatgtac	ttctggagct	attgcggtca	780
				tttcagattg			840
	agtggaggtc	ctgcatggga	tctgatggat	catgaaaata	ttttgtttct	caccatatgc	900
				atcgttggaa			960
	tggttggtta	aatctagact	taagaggctc	tgctcctcag	aagttggact	tctgaaaaat	1020
	gctgaacgag	aacaagaatc	agaagaagaa	atgtgacttt	gatgagcttc	cagtttttct	1080
	agataaacct	tttcttttt	acattgttct	tggttttgtt	tctcgatctt	ttgtttggag	1140
				ctgtttgcat			1200
	ttgaatttaa	atattttctt	tttagctttg	aaaatatttt	gggtgatact	ttcattttgc	1260
	acatcatgca	catcatggta	ttcaggggct	agagtgattt	ttttccagat	tatctaaagt	1320
				ttttatttgc			1380
	tactgggctt	gctactáttt	gtaactcctt	gaccatġgaa	ttatacttgt	ttatcttgtt	1440

```
gctgcaatga gaaataaatg aatgtatgta ttttggtgća ramaaaaaaa aaaaaaaaa
                                                                       1500
 aaaaaaaaa aaagggcggc cgc
                                                                       1523
 <210> 17
 <211> 601
 <212> DNA
 <213> Homo sapiens
 <400> 17
 ggaattcggc acgagtgcac atgtgagcat gtcacttccc tgcttaaatt tctccagtgg
                                                                        60
 attcccaggg acttcaggat caagtcctag ttgttcagca tggcatccaa gactctttat
                                                                       120
 gatctggccc ttgcttacct ctcagcctta gctctcccaa ctcttgcaca gtcactgctc
                                                                       180
 ttcagccata gtggatcact caccattccc agatgtacca ggctctcgca cacctctgca
                                                                       240
 cctttgcacg tgctgtttgc tgtgcgtgga atgcccttca ctgtcaccac cctgctcatc
                                                                       300
 cactctacta atgcctcttc attcttttat actcagcttt ctttaaagtt cttctaagct
                                                                       360
 gagttaggtg tetgteettt atgateeege agtatteeat gaataegtat atteteacat
                                                                       420
 ttattgtact gtattataat tgttgaaaac ttgtctgtcc catttagaat gtgagctcct
                                                                       480
 tgagagcaga acggtgtctt cattatctct gtatccccaa ggctttgcac agtgccttgc
                                                                       540
 600
                                                                       601
<210> 18
<211> 2609
<212> DNA
<213> Homo sapiens
<400> 18
ggcacaggga gggtttgtgt gtatggagtg tgtcggttgt gtgagggtgt gtgtgtgagg
                                                                        60
gttatgtgca tgcaaagatg tgtttagggg tgtgtgtaag aagctatgtt gagagtgtgc
                                                                       120
atgtgagggt gtgtgtgt gtatggatgg atgcatagat gcatagatgt ttggttggta
                                                                       180
ggatagatac atagatggat gggtggtttc atgcataaat ggatggatgg atggatgggt
                                                                       240
ggatgcatga gtgggtggat ggttggcatg cgtgcaagaa tggatgcagg gtggatggat
                                                                       300
ggatgcakga atagatgcag ggtggttgga tgatgtgtt rtgtgtgtgt gtgtgtgt
                                                                       360
gtgtgtgtat gtgtgtaaag tgctaagaac tgtgcattga catccaaaca tttcttgtac
                                                                       420
aaaatttccc tagcaaagca aacctgcttt gacttaattt atttgttaaa tgttgcactt
                                                                       480
tgtttatgta tgttttgttt ttggtgggga ataaggagag agaggacgac aaattctatt
                                                                      540
gaagtattta ttttgtgaag atggcaattt tgcatttgtt taaatttttt tcattcttta
                                                                      600
attitigttat cagigocago ccaatataco tgototacoa tiattigogg totgataaaa
                                                                      660
gggtccttgt ggggcaggtt ttgcaaagct tatcaggtaa taacatatgc cacataacct
                                                                      720
tgttgatatg tttgcttctg atttgggaag ctaaacattg gtgtttgaga ggattgccaa
                                                                      780
ttattaattg tcattaccac tactctccat tactttttgt ttggaaattg aacaaaggtc
                                                                      840
agtaatggtt tttggctctt gttaatatcc atcataaaat agattgtttt agattctttc
                                                                      900
cagggtgatt tttccctggg taccccgttt ctacttctaa agaattgctt ggcactttca
                                                                      960
tgtttcaaag ggaaacattc gcttgtagtt ccattttact tgatctctac aagggactga
                                                                     1020
caacatttgc tttactttta ttcacagaga aagttggctt tgatgtctct taaagataat
                                                                     1080
tetgetagtt getgateage cagteagtte acetagette aatetttata ggaettetaa
                                                                     1140
tctaattttc ctatagtgtg actaaaaggg aggcaaatta ttggaacgga ttattcaaat
                                                                     1200
ggatccttaa atattgctat gtataataag ccagttatta tatcaggacc atgttctctg
                                                                     1260
taggccactt tetaaaaaag ccacatatgt gcaattttca ggtttttaga etattgetee
                                                                     1320
ctgtacttta aatgtaaaaa ccacacttct gaacaactaa gctcatgaat atgattttgg
                                                                     1380
ttatatgcag cttttgacta gcatgtattg tgtctttttc tcctctatga ataattttat
                                                                     1440
atttcatgct acttcttgaa agtttactct ttgatgctct aagagaacag ccagatggtt
                                                                     1500
tatatgaata atctttatct gcaggatggt ggattggtaa attaggagaa tgttgtttga
                                                                     1560
gatatcaaga tttatgtctg ggaactaaaa tatataatgc caaatgtgtt tttgtcaatt
                                                                     1620
actagagaat tetgtgeaaa catateatet etteaaatge tgeaeaettt gettttgtta
                                                                     1680
aacagcaggt agtagacaga acaataacag tttcgcgtta agacttttaa aggaaataga
                                                                     1740
atcgtgatta agaaatcaga atttatagat atattgggat aaatgaagaa ataaaaatgt
                                                                     1800
```

```
ttgtctagaa tgtagcatct agtgactttt taaagcccta acgtttacat aaagaagctc
                                                                         1860
 tagttcttat agaaataaca aagcaaataa aagttcttaa caatcccctc tttcgaagtg
                                                                         1920
 cattttttta aagcagggca ggagacattt ggactctagc tatatgacat actgggaaag
                                                                         1980
 gcagagggtg gagggaagat ttcacttcat tgtctagccc agaatcttga gcaagctaaa
                                                                         2040
 gaaaccatca taatctaaaa ttgcttcatt taacactaac aatttagact ttttaaacca
                                                                         2100
 agcattgaat aatggctgga taactgccga agtaagcgcc gctccatgaa gtctgcttac
                                                                        2160
 ttatttaaaa attgtgtatc agttttaaat actgttcatt gtgtgcagat ataaggggaa
                                                                        2220
 tagggcattc tgtagaatta tacatgtcta gtttgtaaag tgtgtcctgt gtactgcaga
                                                                        2280
 tgtgtgttct ctgggcttta tgtatctgta cagtagcttt cacattaaaa aaattgtgga
                                                                        2340
 caaacttgtc cggggggttt gaggggagaa tggtggttta tatcaataac gatgctgtac
                                                                        2400
 tatagtccat gtaacaaaag atctggaagt cacceteete tggeecacgg aaaattttgg
                                                                        2460
 taatetteta ggttetaaaa tgaagatgta tgggtaetet ggeagaetge atgttgtata
                                                                        2520
 atttgaaaaa tactaaaagt ggaaaataaa attgaattaa actttraaaa aaaaaaaaa
                                                                        2580
 agggcgcccg ctcgcgatct agaactagt
                                                                        2609
 <210> 19
 <211> 1113
 <212> DNA
 <213> Homo sapiens
<400> 19
ggcacgagcg gggacggggc taagatgata tctgggcacc tcctacaaga accgactggg
                                                                          60
tctccagtag tctctgagga gccgctcgac cttctcccga ccctggatct gaggcaggag
                                                                         120
atgcctcccc cgcgggtgtt caagagcttt ctgagcctgc tcttccaggg gctgagcgtg
                                                                         180
ttgttatccc tggcaggaga cgtgctggtc agcatgtaca gggaggtctg ttccatccgc
                                                                         240
ttcctgttca cggctgtgtc gctgctgagc ctctttctgt cagcattctg gctggggctt
                                                                         300
ctgtacctgg tctctccttt ggagaatgaa cctaaggaga tgctgactct aagtgagtac
                                                                         360
cacgagegeg tgegetecea ggggeageag etgeageage tecaggeega getggataaa
                                                                         420
etccacaagg aggtgtccac tgttcgggca gccaacagcg agagagtggc caagctcgtg
                                                                         480
ttccagaggc tgaatgagga ttttgtgcgg aagcccgact atgctttgag ctctgtggga
                                                                         540
gcctccatcg acctgcagaa gacatcccac gattacgcag acaggaacac tgcctacttc
                                                                         600
tggaatcgct tcagcttctg gaactacgca cggccgccca cggttatcct ggagcccac
                                                                         660
gtgttccctg ggaattgctg ggcttttgaa ggcgaccaag gccaggtggt gatccaactg
                                                                         720
ccgggccgag tgcagctgag cgacatcact ctgcagcatc caccgcccag cgtggagcac
                                                                        780
accggaggag ccaacagcgc ccccgcgat ttcgcggtct ttggcctcca ggtttatgat
                                                                         840
gaaactgaag tttccttggg gaaattcacc ttcgatgttg agaaatcgga gattcagact
                                                                         900
ttccacctgc agaatgaccc cccagctgcc tttcccaagg tgaagatcca gattctaagc
                                                                        960
aactggggcc acccccgttt cacgtgcttg tatcgagtcc gtgcccacgg tgtgcgaacc
                                                                       1020
tcagaggggg cagagggcag tgcacagggg ccccattaaa catgctgatt tttggagtaa
                                                                       1080
aaaaaaaaaa aaaaaaaaa aaaaaaaaa aaa
                                                                       1113
<210> 20
<211> 947
<212> DNA
<213> Homo sapiens
<220> .
<221> SITE
<222> (547)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (555)
<223> n equals a,t,g, or c
```

tcgta

```
tgaagacaag ggtggcatat atttactttg caataagtac accatattgg gtccttttga
                                                                          60
 gattgtcatt tgggtgtgta gcatttaaga tttaacagct ttctattata gagatcctac
                                                                          120
 agctttatat tagaagatta ttctgaagtc ataacatttt tttaaaaaag taatttcaga
                                                                          180
 aaaaaaaaag aatgttactg ggataatgag gaatgatgtc tagctgcctg gtggtggtca
                                                                          240
 tcactctgcg tgcttatttt agttggttgc aggccattag aagtcaagtt gtctggtcac
                                                                          300
 gaatgaaacg tttacagtct gcttcaaggc aatcaggact atccattccc aggagtgaaa
                                                                         360
 tgtctgcatt gcatagactg caagattgga gtgataaatc acacatactt ttttttattt
                                                                         420
 ttttgccaag agtttgtagg ttcccattat aaagccaggc acttgattta gaatgtgtaa
                                                                         480
 ggcaatcett tgggaatget ttgggatyca gcataactet ttgaatgaac tggagetttg
                                                                         540
 tgaattneet ttttnteete agateataag gtagaaaaaa atteettta acaaaatage
                                                                         600
 attettatee acceaectte tgateeaggg gagtacaetg ggtattgace teaggaaaga
                                                                         660
 gaacaaggga gtgagggtac aggaaatgtt aggagtgtga gcttgaagac aaagacgacc
                                                                         720
 caactggcaa agacagcagt tgtcaatcag agcagatgaa tcatcacatc agcaaatatt
                                                                         780
 cattatatat ctgctcaata ataagaaaag cttctaccaa aggccaatgc tccagacctc
                                                                         840
 teccegaace tecagattea ettacecace tgeetacece ageaatgtae agageatege
                                                                         900
 ctcgtgccga attcgatatc aagettatcg ataccgtcga cctcgag
                                                                         947.
 <210> 21
 <211> 1685
 <212> DNA
 <213> Homo sapiens
<220>
<221> SITE
<222> (396)
<223> n equals a,t,g, or c
<400> 21
gcaaagatca cggttatggc aaggttagtt tctggtgggg atgctcttcc ttacttgcag
                                                                         60
aagcccacat tottgctgtg tcatcacatg gtttttcctc tgtgcttgtg cacttgtctc
                                                                         120
ttettettat eaggaeaaca ateetattgg ttteaggeet gageettata accetattta
                                                                         180
atgttaataa cctttgtaaa agccctatct catatcacat tgggggttag agtttcaacc
                                                                         240
tatgcatttt ggggacacaa tgtagtctat atcaccttgc cttatccttt gccacttaga
                                                                         300
tcatcacatg gtcgatgcct tttcattact caggtgttat tctaatatca ttccttggag
                                                                         360
agttctccct caactattgc ttaatcacag tgtatngtaa ctctacagga catgtctgac
                                                                         420
cctgttcact catcactaaa attactatat acaaccagaa ttgtgcttga cacatataat
                                                                         480
gaagcattga gaaaacattt gttgaataaa tgttttcttc taatactggt ttatgggcat
                                                                        540
aactatttct gaatgtgtcc tttctcaaag gtagacacct gagctttatg atccatggtg
                                                                        600
ttatcctaaa aaacagaaca caatattatt atattaagta taccactgaa tatagcaatt
                                                                        660
ggtgtcttga ggagttacaa catgtcattm tttawatagg ttatcatatt ttttccagta
                                                                        720
atcaccccag ctatattaaa atgaaacttc tccccttttt ctctctaggt agcatcttcc
                                                                        780
ttgactcttt cttagacaga tgctataact tttcagctac ttgagttatt agtttatttc
                                                                        840
attatttatt gattttaaaa tgccaatctc aaattatact caaaggtttt tctacatttc
                                                                        900
ccatctgtga tgacagetet tatagettta arartactag gttgtgggtg ggettcaaga
                                                                        960
catctctttt cactcccact tctagatgcc agctccatct gtgatatgac aagagcgggt
                                                                       1020
aaatatette ttaettgaet caateagatt geagtettet ttteettggt tgttgettet
                                                                       1080
caggotgaca ottactotag atgtoototg catggttggg otcotaatto otgtaattot
                                                                       1140
gaatggtctc cakgtactty cttttagaat cacctaagag gtgttccact tcttgggtca
                                                                       1200
ctgaaagagg ctggtcaaga ttcaaatcca cttatttaat cactttattc ttggttaaaa
                                                                       1260
tccaacaaag actgatccta gcataccttt tctttgtttt ctgcctgaat gagtattagc
                                                                       1320
aggccagett gagcacagca gcattattta catecateat geccaagagt agtteatate
                                                                       1380
cttgcttcat caaataggag gacaagttaa ttaccagaat tccttatctt agcacctcca
                                                                       1440
tetetetgtt ggteattget tteatgeegg ggeageaata aagtatetgt ggateeaatg
                                                                       1500
cctcactaac tcttttttgt ttctgagatg gagtctcatt ctgttgccca ggctggagtg
                                                                       1560
cagtggcgcg atcttggctc actgaaagct ccacctcctg ttttcaagca attctcctgc
                                                                       1620
ctcaacetee tgggtageet egtgeegaat tegatateaa gettategat acegtegace
                                                                       1680
```

```
<210> 22
  <211> 1837,
  <212> DNA
  <213> Homo sapiens
  <220>
  <221> SITE
  <222> (48)
  <223> n equals a,t,g, or c
  <220>
  <221> SITE
  <222> (987)
  <223> n equals a,t,g, or c
  <220>
  <221> SITE
  <222> (1037)
  <223> n equals a,t,g, or c
  <220>
  <221> SITE
  <222> (1312)
  <223> n equals a,t,g, or c
 <400> 22
 cagcagagee cagegeggtg ctateggaca gageetggeg agegeaangg aegeggggag
                                                                           60
 ccagcggggc tgagcgcggc cagggtctga acccagattt cccagactag ctaccactcc
                                                                          120
 gettgeecae geecegggag etegeggege etggeggtea gegaecagae gteeggggee
                                                                          180
 gctgcgctcc tggcccgcga ggcgtgacac tgtctcggct acagacccag agagaaaagc
                                                                          240
 ttcattctgg aggggaagga gttttgagtg ccaaggatga aattccaccc atcactcggt
                                                                          300
 ctctgagctg caggacacag gcaggacaac gggagcacac tgccaggatg ggagctgctg
                                                                          360
 ggaggcagga cttcctcttc aaggccatgc tgaccatcag ctggctcact ctgacctgct
                                                                          420
 teeetgggge cacateeaca, gtggetgetg ggtgeeetga eeagageeet gagttgeaae
                                                                          480
 cctggaaccc tggccatgac caagaccacc atgtgcatat cggccagggc aagacactgc
                                                                          540
 tgctcacctc ttctgccacg gtctattcca tccacatctc agagggaggc aagctggtca
                                                                          600
 ttaaagacca cgacgagccg attgttttgc gaacccggca catcctgatt gacaacggag
                                                                          660
gararctgca tgctggggag tgccctctgc cctttccagg gcaatttcac catcattttg
                                                                          720
 tatggaaggg ctgatgaagg tattcagccg gatccttact atggtctgaa gtacattggg
                                                                          780
 gttggtaaag gaggcgctct tgarttgcat ggamagaaaa aactctcctg gacatttctg
                                                                          840
 aacaagamcc ttcacccagg tggcatggca gaaggaggct atttttttga aaggagctgg
                                                                          900
 ggccaccgtg gagttattgt tcatgtcatc gaccccaaat caggcacagt catccattct
                                                                          960
 gaccggtttg acacctatag atccaanaaa gagagtgaac gtctggtcca gtatttgaac
                                                                         1020
 geggtgeecg atggeangat cetttetgtt geagtgawtg atsaaggtte tegaaatetg
                                                                         1080
 gatgacatgg ccaggaaggc gatgaccaaa ttgggaagca aacacttcct gcaccttgga
                                                                         1140
 tttagacacc cttggagttt tctaactgtg aaaggaaatc catcatcttc agtggaagac
                                                                         1200
 catattgaat atcatggaca tcgaggctct gctgctgccc gggtattcaa attgttccag
                                                                         1260
 acagagcatg gcgaatatty caatgtttct ttgtccagtg artgggttca anacgtggak
                                                                         1320
 tggacggakt ggttcgatca tgataaagtw tctcagacta aaggtgggga gaaaatttca
                                                                         1380
 gacctctgga aagctcaccc aggaaaaata tgcaatcgtc ccattgatat acaggccact
                                                                        1440
 acaatggatg gagttaacct cagcaccgag gttgtctaca aaaaagscca ggattatagg
                                                                        1500
 tttgcttgct acgaccgggg cagagcctgc cggagctacc gtgtacggtt cctctgtggg
                                                                        1560
 aagcctgtga ggcccaaact cacagtcacc attgacacca atgtgaacag caccattctg
                                                                        1620
 aacttggagg ataatgtaca gtcatggaaa cctggagata ccctggtcat tgccagtact
                                                                        1680
 gattactcca tgtaccaggc agaagagttc caggtgcttc cctgcagatc ctgcgcccc
                                                                        1740
 aaccaggtca aagtggcagg gaaaccaatg tacctgcaca tcgggggtcg acgcggccgc
                                                                        1800
 gaatcccggg tcgacgagct cactagtcgg cggccgc
                                                                        1837
```

```
<210> 23
 <211> 1095
 <212> DNA
 <213> Homo sapiens
 <220>
 <221> SITE
 <222> (720)
 <223> n equals a,t,g, or c
 <400> 23
 ggcacgagga atgggtgggt tttttttaag cagttattac ctcagcattt tgacatcaga
                                                                          60
 tatgcaaact taatggcgtt ttgttttttt atattctatt tgtattcttt ccccagtatt
                                                                         120
 tcccatgggg atctccacaa gtttggagtt ttttcctggt gcacacacgt gaggagattt
                                                                        180
 aaggtactat atgcaagtgt tttactaaaa agcactgaaa ttcttctggc aatacaagaa
                                                                         240
 ccattttcag gatcttggag ttacttcctt cttaatcttt cttaaagcat tcactgatgt
                                                                         300
 ttttgttttt tcaaaatgaa acaaaaatat cacattgaga agctagtcta tgttctgtca
                                                                         360
 ctaacattta aactttgcag actctaacaa aaagcacaag aggtcacgta ctattataca
                                                                         420
 aatttagcgg tactggattt acctctgaca ttaacacact caggcagaga ccaggagtga
                                                                         480
 tcagcaggtc ttcagaacca aaaaaccttt ctgttcacat ttcatctgat ttttaaactg
                                                                         540
 aggcaggett tgattettet gaaggatgee aagaateaaa etaagggagg aeteaetgtt
                                                                         600
aaagatgtgt tctgatgtct tatattaaga ccaratgtga catgatgtga ttatcttcca
                                                                         660
gtactttgct tttaggtacc atttcatgac attttaggaa tgagtattgg aaaatataan
                                                                         720
gaattagaaa agcagcactt tttttttaat ggaaaagtct tcggtccagt gttacacctt
                                                                         780
atagtgtaat tcagteccta agcacagaat gaatgtctgg cctgcatatg gtagttacag
                                                                         840
tgtaacctct ggctgcagac cacacaggac aaccctaaca gcctagtctt gtatggtgta
                                                                         900
aatatcaaga gtacagcttc aatttcattt gctttatctt agcaacaatg ccaactcagg
                                                                        960
agagcagacg gccgatttca gtgaagtctg gtagtcaaca gatgttattt cagtctcagt
                                                                       1020
gcatctcctc tggctttctt tgactgaagg tgtttatagg aaggaagtta aaaaaaaaa
                                                                       1080
aaaaaaaac tcgag
                                                                        1095
<210> 24
<211> 1039
<212> DNA
<213> Homo sapiens
<400> 24
ggcacgaggt tgttctgaga attaaatgag ttactacact taaggagttt agagcactgt
                                                                         60
tggcatgcag tgggcagtca aatgctggct attccagctg tgcatggatt ccagcttggc
                                                                        120
cagtettgga tgggetgaga aaagggaget getttteeet aaaagaeeat eecaactgtg
                                                                        180
ctctaccaca ctttgctctc ctggctaaga ctcagagaca gatgtatgta tgcccctgag
                                                                        240
caatctcttt cccttctctg gatctcgatt ccttgcttgt ataatgacct ggtagtgtag
                                                                        300
gaccaatgtt gctgggtgcg gtggctcatg cctgtaatcc tagcactttg gaacgccaag
                                                                        360
cacgagaatc tcttgattcc aggtgttcaa gaccagcctg ggcaacatag caagacccca
                                                                        420
tctctaaaaa aaaaaggcag gcgtgatggt gcacacctgt agtcccagct actcaagatg
                                                                        480
ctgacgttgg gaggatcgct tgagcctggg agcttgagcc atgatcacac cactgtactc
                                                                        540
cagcctgggt gacagagagg gactctgtct caaaaaatga cccactagga ccagtgtcac
                                                                        600
tttcttttcc ctctaactgc ttaaagctgt gatgctcagt aggatagcca ctagcccat
                                                                        660
atggctattt caatttaaat aaattaaaat tttaatgcta tttcaattta aataaattaa
                                                                        720
aattttaatg ctattttaat ttaaataaat taaaattaag taaaatgaaa ttttcagttc
                                                                        780
attagtcaca ttagctatat ttcaactgct cagtggccat aggtggctag tggctcccat
                                                                        840
agcaagtggt acagatgcca ggacatttcc atcattgcag aaagttctat taaacaggct
                                                                        900
ggcatggtgg ctcatgtctg taaccccagc actttgagag gctgaggggg caggatcgct
                                                                        960
tgaagctagg agttcaagac cagcctgggc aacaaagtga gacccccatc tctacaaaaa
                                                                       1020
aaaaaaaaa aaactcgag
                                                                       1039
```

<221> SITE <222> (27)

```
12
  <210> 25
  <211> 1076
  <212> DNA
  <213> Homo sapiens
 <220>
 <221> SITE
 <222> (910)
 <223> n equals a,t,g, or c
 <220>
 <221> SITE
 <222> (912)
 <223> n equals a,t,g, or c
 <220>
 <221> SITE
 <222> (958)
 <223> n equals a,t,g, or c
 <220>
 <221> SITE
 <222> (1038)
 <223> n equals a,t,g, or c
 <400> 25
 aattcggcac aggaaaataa tttaćaatga actggtgttt gtgcataata tctctcacca
                                                                          60
ccctcctctc catcccagta cacattgttg gtgaggaaaa agacatgctt aagtgcacat
                                                                         120
tctgtctcct aaacactctt aagaaatgtg ttgtatggaa gagattatat cataatggtg
                                                                         180
gagcaaataa cctgtaattt tgttctagtg ttaactgcct ccattttagg ggttgagttt
                                                                         240
ctactccttt tccatgatct cttctcttgc tgtttaaaaa atgatttcac agagtaaagg
                                                                         300
tcagagtgcg ttaaaatgct tttgtatgaa gacctagcaa atacaagacc tgcttggctg
                                                                         360
attgcttatg gttggaagtg actcatctaa gcacaggagt gtgaggttta tggcttagaa
                                                                         420
cgtaagatac cagcctctgt agtggccaaa taagccggcc tttttgtttg ttattacaga
                                                                         480
tgggttttga tgtcaaggtc aactgagttt tgagttgtcc ataagatgga cagaacatct
                                                                         540
gcatataaca ccaactgaat gaacccccag tttgtctagg gctttgataa aaaatttggc
                                                                         600
cctctagacc gggcgtggtg gctcacacct ataatcccag cactttggga ggccgaggtg
                                                                         660
ggaggattgc ttaaggtcag gaatgcaaga ccaacttggt cttgtagtca gtgtagtgag
                                                                         720
accccatctc taccaaaaaa aaaaaaaaa aactcgaggg ggggcccggt acccaattcg
                                                                         780
ccctatagtg agtcgtatta caattcactg gccgtcgttt tacaacgtcg tgactgggaa
                                                                         840
aaccetggeg ttacceaact taategeett geageacate eceetttege eagetggegt
                                                                         900
aatagegaan angeeegeae egategeeet teecaacagt tgegeageet gaatggenaa
                                                                         960
tggcaaattg taagcgttaa tattttgtta aaattcgcgt taaatttttg ttaaatcagc
                                                                        1020
tcatttttta accaatangc cgaaatcggc aaaatccctt ataaatcaaa agaata
                                                                        1076
<210> 26
<211> 860
<212> .DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (15)
<223> n equals a,t,g, or c
<220>
```

<223> n equals a,t,g, or c <400> 26 acaaaagctg gagcnccacc gcggtgncga ccgctctaga actagtggat cccccgggct 60 120 ggaagcgaag agtcagcctt ggagagagca ccctggggcc tccgtgtcgg ggtacaccca 180 gcactttgcg acctgcggcc cagcaggcgc ggaggatggc ggggaggaag ccagcagccc 240 300 tgttttgttt ggcttgtttg ttttttaagg ggaaaaaagt ttgtaattat ttcatccaaa 360 tctcccgtta tatatctgtg aataataaga gattttataa tagcaagaaa atgatgtata 420 ttttagtttg ttgacaaata agtcatcatg atcacgaagg acactgagaa aaaataattt 480 agaaccctgg tttttgtgaa wttttttgtt ttgtgtttct ttgttttgag atttgtgttt 540 ggtttggttt ttgcactgca ctaaggcagg agggttggag ggctgggtgc agcctgggag 600 teegatggtt tteageagga gaeggggtgt eeeetgeagg gggetaaact geaggggeet 660 gagattaget gtgaacatgt gggageeega tgeatgtggg teagggatet gggggeeeee 720 ccagctggcg ggaaccccaa atggacacaa actgtacatt tgccaatggg tttttttcag 780 accatggttt ttacttgcaa ataaacctga gttcttttct gcaaaaaaaa aaaaaaaaa 840 actgcggtcc gcaagggaat 860 <210> 27 <211> 776 <212> DNA <213> Homo sapiens <220> <221> SITE <222> (2) <223> n equals a,t,g, or c <220> <221> SITE <222> (13) <223> n equals a,t,g, or c <220> <221> SITE <222> (61) <223> n equals a,t,g, or c <220> <221> SITE <222> (79) <223> n equals a,t,g, or c <220> <221> SITE <222> (101) <223> n equals a,t,g, or c <400> 27 tnttggcccc atngatttta ccgcccaaag cttcttaatt acggactcca cttattaggg-60 naaaagcttg ttacgcctng caaggtaccc ggttccggaa nttcccgggt tcgacccac 120 ggcgttcgag ggctcctttc tcttgcctgg aggggaaaac agaagattct ggcttgagct 180 teceteatge tgeectattt taagtggete etceaeetgg tgaggetgte etttgtetet 240 ctggcttctc catgggacag cacagctggc cttggcctga agctccctaa catctatggg 300 atgacatcta tgggatggga tccctcacct ggggccaggg gaggggttgg cacagagaag 360 cgatgagatg ggtctccaag gccaggtctc ctttcatcct gagcaaaggg ctcagggcta 420

tgaaatgatc caagacatga aacaaatatt aaatataaaa atagagtcca aaggccaggc

```
gcggtggctc atgcctgtaa tcccagcact ttgggaggcc gaggtgggtg gatcacgagg
                                                                         540
    tcaggagatc gagaccatcc tggctaacat ggtgaaaccc cgtctttact aaaaatacaa
                                                                         600
    aaaattagcc aggtgtggtg gtgggcgcct gtggtccctg ctactcggga ggctgaggca
                                                                        660
    ggagaatggc atgaagctgg gaggtggagt ttgaggtgag ccgagatcac gccactgcac
                                                                        720
    tocagootga gtgacagago aactocatot caaaaaaaaa aaaaaagggo ggoogo
                                                                        776
    <210> 28
    <211> 1074
    <212> DNA
    <213> Homo sapiens
    <220>
   <221> SITE
   <222> (1063)
   <223> n equals a,t,g, or c
   <220>
   <221> SITE
   <222> (1067)
   <223> n equals a,t,g, or c
   <400> 28
   ggcacgagcc aaattcagta gtaacagtaa attactaagg tgttttctct cttcattaca
                                                                         60
   gatacgtaat tcacctctgg gacctcaacc acgaagggac gtgggaagga aaggggacgt
                                                                        120
   atgtctatta cacagacttt gtcatggagc tcactctcct gtccctggac ctcatgcacc
                                                                        180
   atattcacat gttggtaagt ttcctcagaa ggagctctaa cagagggcaa gcctttcaga
                                                                        240
   atcaggaaca gtaatggttt cttcattaaa aaatgaaact ttagaaataa gatgtggatg
                                                                        300
   gactacttaa agactaaaaa tgaatgtggc tgcaaaccct ccctcttttt gccactgggt
                                                                        360
   gtaaggcagt gccatggaac tgctttggct ggtgcctaac tcaggaggtg tttgctgtcc
                                                                        420
   tgggagactt agttaactct gctgaccaag tcaatagatt attcttttag catgaaatta
                                                                        480
   aggagetgee ttteeceata gtttetatgg etttaaatat ttageaggta etttgtaggt
                                                                       540
   ggtaatggga attcctgcag tgttagctac ttcacagatt tatacatttt ccatctttgt
                                                                       600
   aattaaaaaa agtotttaca ottaattoot acattootao taccatcatt gtttacattt
                                                                       660
   tactttggta tgttagacgt tacggtgtcg tagatctgcy tcattggktg gcccttcagt
                                                                       720
   gatctaataa tggtgagaat taaaatagtt ggtgggcaat ttawttaaat tataagccta
                                                                       780
   gcaagtagca ttttaaaawt attgggctag acgtggcmca tttctaagtc tacttttga
                                                                       840
   aagaaacttt gaaaacatac tttttaaaga aagtatgtaa ttctttttt taaaaaagag
                                                                       900
   cctcggctgg acgcggtggc tcatgcctgt aatcccagct actggggagg ctgaggcaga
                                                                       960
gaattgcttg aacctgggaa atggaggttg cagtgagctg agatcgcgcc actgtactct
                                                                      1020
   1074
  <210> 29
  <211> 2749
  <212> DNA
  <213> Homo sapiens
  <400> 29
  gccgctcagt gccctggaca ggagatgctg tgttaaactg ttaatggata tctatatgag
                                                                        60
  120
  aataaacaag tetgtgatgt cagagacaaa ggtgtattet teagtetgea ggtgtgtgge
                                                                       180
  acctcccttc tcccctgcag cccccacat ccagagccgt tcctgagagt.gacatcatgc
                                                                       240
  atcaagaaaa cataaccttg gtcctcaggt gaacccttgg aacattctgt gaccgcctga
                                                                       300
  tgtccattct gagccacctt ggcacacatg cttacaggsa gcactgctaa gggttcaggt
                                                                       360
  gccccatggc tgacagcccg agttgcttct gtggaccatc atgccgctcg gcacgtcctg
                                                                       420
  agacagaagt tgctgcagga aggagcttct ggagaggtcc tgtggcatgt gtgggggtgt
                                                                       480
  gtgtgtgtat gtttccttct tgaacagaca ttccaacttt agatgtgttt atagaactga
                                                                       540
  cctttttact aacaaaatac aatgatatat gttggaaact acttaatatg cttttcctgc
```

```
acacettage aataactgta ggggtetetg etagagttgt ttgtatgtae ageaattttg
                                                                         660
 aacaaattgt tttaaatgta atataagaga attagtttaa ggaagtaaag agaatcattt
                                                                         720
 gcttgtgtta cattttcagt gaggattcag tttaagagtc attcttagga cttccatttc
                                                                         780
 ctaatattta ttcatgggta atgmagaaat ggtttgcatt ttgtggccag tcctaattta
                                                                         840
 ttttccagct gagccctaac ttccggctcc cacctacctc cacggacttc ctaacagaga
                                                                         900
cttatgaata ccaggatgtg tttttgttaa gtcaggttca attcgttgcc cctgtcagtt
                                                                         960
ttatagagtg tgagggtcac tccattaaag atctctcctg ggtggatcct acttggatgt
                                                                        1020
tcaggtgatt ttgaaaactg ctaacatttt taaaaggcta gaacatcctt tgacttcttg
                                                                        1080
aaaatctgca tgtctggctt gggttttatt accacatgcc tgagttcttc aagaatggaa
                                                                        1140
ggctcaagta ttctcatctt ccatttgcca aacttccttc ctgatttgag tcacgtgttc
                                                                        1200
cacttggaaa gaaagggaac agagagcctc ctccatggac agtgtatgaa tttcattggg
                                                                        1260
aatcttgctc tctcccgcct ctatgccttt ctctctttt aaccttactt tacataatat
                                                                       1320
tatagatggg ccaagaaaag aaaagatgac ataacatttt gatgaatttc acctattcca
                                                                       1380
ttcttcacgt ttcagaattg gtcgactttg ttagaagata attgaagtag ccttgggtca
                                                                       1440
aaagcaacct tttcaattgt gatcatacct aaaacatata aaaaccctgc cgtagattaa
                                                                       1500
aagcaattat aaaatcataa aattgaatgt ttgcagaatc ctggagcagt agatttcttt
                                                                       1560
gtctttggcc tgcggactag aaagagggca gcagtagtat gctggagctt ccctgggata
                                                                       1620
ccagccacat ggtttctttt cattagatct gatttttgtt tcccactgta gatctgattt
                                                                       1680
tgtagttgaa aacatttcac caccatcaaa cactatttct gaatattgtg cctttttata
                                                                       1740
cctagcctag atgaaaaccg atgccattct tattcagaaa atccccccat cctacatgac
                                                                       1800
tgttatctag acataaagca aagtgcattt aattcaaaat ttggttcaca atataagtat
                                                                       1860
tttgtaaaag ccagctgaac cagcatttta tcaggtggaa atctctgcaa gccaaattgc
                                                                       1920
tgatactcct tcatgcagat caacttggtg tcccagtcag aatagaacag cataattacc
                                                                       1980
tggagttagg gggagtattt ctgcactatt acttgtcagg gagagaagaa acttagaatt
                                                                       2040
gtccctcaaa ggagtgtcaa gaagtatgaa taaatgtcct ttcaccagct cacaggccag
                                                                       2100
aaatggagga cccaagtcaa ctaggtgaaa ctactagcag acccagcttt cccataataa
                                                                       2160
cctaatctgc aaattgttct attaaagtct cattgttttc aggatgcaat gaaagtggat.
                                                                       2220
ttcaaaaggc tttggaaaaa taagtggaac atgactgatc ttgaaaaaaa aagcaaaagc
                                                                       2280
ttaaatattt gatacaagtt tacttagcta caacatactt tacattgttg cctttagtta
                                                                       2340
tctcacaggc actgacattt tatatttaga aaatactttt aatctttcta atctttttt
                                                                       2400
gtaaatatta gtgtccattc tgtatgactc gctaacctac tttgcaaggc tttgggcaac
                                                                       2460
attttagctc attaacttca agatgatgtg tcatctgtat aggtcaaaga atgggacttc
                                                                       2520
tgaactgagg aatttgctgt tgacagccaa agtatagtgt acaagattga tgtaacttga
                                                                       2580
tatgtatttt tgttgaagtt tiltgtaaaa aaaaattatt tacaatgtta tilgaatgat
                                                                       2640
ttttttaaat gctgtgaatc tatatttgtt gttttrtata ttaaaattca tttgccaaaa
                                                                       2700
aaaaaaaaa aaaaaaaaa aaaaaaaaa aactcgagac tagttctct
                                                                       2749
```

```
<210> 30
<211> 604
<212> DNA
<213> Homo sapiens
```

```
gcaattttaa tatagtcaaa catttattag aagcagaaaa gtcattgtar agcacttgaa
                                                                  60 ·
ttatatttaa aagtttagcg gtctaaacta gcaatctaag atgattgtga aataaaggca
                                                                 120
180
gctgcgctaa caaatggcct gcagatcttg gtgctttaca ctactagcaa atgtttcttt
                                                                 240
tacgettetg etgeetgtee actgggggte ageagaggee gtettetetg teageateae
                                                                 300
tctaggatgc cggccaccca gcagcctctc tgtgccactc agcagaggga gaagagacct
                                                                 360
ggggagccac gtgctggctc ttgttgcttc tctttggaag tgacaccgtc actttcacat
                                                                 420
atgtttcatc agccagagaa agtcagctat ggctggctca atagagccag taagtctaat
                                                                 480
cctcctgaag cagaagctct gcagagagag gagccaaata tactgaacat aatacagtag
                                                                 540
acaagagaat gtgtgtgact ctgaaaccat taagggagta aaaaaaaaa aaaagggcgg
                                                                 600
ccgc
                                                                 604
```

```
16
 <212> DNA
 <213> Homo sapiens
 <400> 31
ggtgagctgt gatcgtgcca ctgcactcca gcttgggtga cagagcaaga ccccggaccc
                                                                         60
 tgtctcaaaa aaaaaattcc ccagttctca gggtgtggta gaggccgagt cagtcatggc
                                                                        120
 tgagacaagg ggactgtgct ctgtgtgctt ctgtgccctg tgtttatatg gttcatacgc
                                                                        180
 tgcctgtcca ccatgttttt cccgagagcc tcggcagcgc aggcatcatg ggaatgactg
                                                                        240
 ggtcaggtgg aaattcagag gccctgccct ggtgggcaga gaagcctggc ttacctccca
                                                                        300
 agcacagcat gtgtgtggat cacttctgtg cactgtctcc tcatctccaa aatgggagtc
                                                                        360.
 ataactgaac tcacctcatc aagttgttat gagatgatgt agattcagcg aagtagcaag
                                                                        420
 agtaggagtt tgggctttga taacagagag aagtgagttt ccatctagat tctcccctg
                                                                        480
 tgtcactttt ggcagttggc ttcacctctg tgggcctctg ttatgtcatc tgtaaaatgg
                                                                        540
 gattaaccct aaaagccacc ctcacagggt cattgtgagg attgcacaag gtgatgcaag
                                                                        600
 tggcacaggg tctggcccag gagagggggc tggaagagag cgagctgcca ttgtattttg
                                                                        660
gttgctgtgg atctaaggag aagagatgtt taggagtctt tccctggcat ggttcctcct
                                                                        720
gccttcaccc atcactcttt tcctcgag
                                                                        748
<210> 32
<211> 943
<212> DNA
<213> Homo sapiens
<400> 32
cctaaatgca aacattttca tttaaatgtc aagcccatgt ttgtttttat cattaacaga
                                                                        60·
aaatatattc atgtcattct taattgcagg ttttggcttg ttcattataa tgttcataaa
                                                                       120
cacctttgat tcaactgtta gaaatgtggg ctaaacacaa atttctataa tatttttgta
                                                                       180
gttaaaaatt agaaggacta ctaacctcca gttatatcat ggattgtctg gcaacgtttt
                                                                       240
ttaaaagatt tagaaactgg tactttcccc caggtaacga ttttctgttc aggcaacttc
                                                                       300
agtttaaaat taatactttt atttgactct taaagggaaa ctgaaaggct atgaagctga
                                                                       360
atttttttaa tgaaatattt ttaacagtta gcagggtaaa taacatctga cagctaatga
                                                                       420
gatatttttt ccatacaaga taaaaagatt taaccaaaaa atttcatatt tgaaatggaa
                                                                       480
gtcccaaaac ctaggtccaa gttcaatagc ttagccacat aatacggttg tgcgagcaga
                                                                       540
gaatctacct ttccacttct aagcctgttt ttccccccat aaaaatgggg ataatacttt
                                                                       600
acaaggttgt tgtgaggctt agatgagata gagatttatt ccataagata atcaagtgct
                                                                       660
acattaatgt tatagttaga ttaatccaag aactagtcac cctactttat tagagaagag
                                                                       720
aaaagctaat gatttgattt gcagaatatt taaggtttgg atttctatgc agtttttcta
                                                                       780
aataaccatc acttacaaat atgtaaccaa acgtaattgt tagtatattt aatgtaaact
                                                                       840
tgttttaaca actettetea acattttgte caggttatte actgtaacea aataaatete
                                                                       900
943
<210> 33
<211> 1293
<212> DNA
<213> Homo sapiens
<220> .
<221> SITE
<222> (184)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (208)
<223> n equals a,t,g, or c
```

```
17
 gccgccgggg gacgcggacc caaacgccgc tcaccgcttg cggcgccggg catggggagt
                                                                           60
 gtggtgtgag cccgcacccg gggaggacgc aggagctgcg gagacgggcg cgaggaggag
                                                                          120
 gagaggagtc gtggattgga aggacccgag ggagggaggg tggggaagcg agggaaaagt
                                                                          180
 gaanctggga ggagaaggcg gcggaagntg gagattgatg cttctgtttt ttgttgccgc
                                                                         240
 tgctgccctc gcgctgggag ccgagccgga gggaaggcgg tggagagatg attgcagagt
                                                                         300
 tggtgagcag cgctctgggg ctcgccttgt atctcaacac cctgagtgcg gatttctgct
                                                                         360
 atgatgacag ccgtgctatc aagactaatc aggaccttct cccagaaact ccatggacgc
                                                                         420
 acattttcta caatgatttt tgggggactc ttctaaccca cagtggcagc cacaagtcct
                                                                         480
 accggccact ctgcactctt tcttttcgcc tgaaccatgc cattggaggg ttgaatccct
                                                                         540
 ggagctacca tcttgtcaat gtcctgttgc atgcagcagt cactggtctc ttcacaagct
                                                                         600
 tetecaagat eeteettggt gatggataet ggacatteat ggetggettg atgtttgett
                                                                         660
 ctcaccccat tcacacggag gcagtggcag gaatcgtggg acgagccgat gtcggggcca
                                                                         720
 gtctcttctt tctcctctcc ttgctctgct acattaaaca ctgttctaca agaggctact
                                                                         780
 cagccagaac ctggggctgg ttcctggggt caggactgtg cgcaggatgc agcatgttgt
                                                                         840
 ggaaggaaca aggagtgact gttctcgcag tttcagcagt ttatgatgtc tttgtctttc
                                                                         900
 acaggetgaa aataaaacag atattaeeta eeatttaeaa aaggaagaae ttgtegettt
                                                                         960
 tectaageat tagttigtta attitetggg gtteeteet titgggtgee eggttataet
                                                                        1020
 ggatgggaaa caaaccacca agcttttcca actcggacaa ccccgctgct gattcggaca
                                                                        1080
 gcctcctcac ccgcactctc accttcttct acttgccaac caagaacctc tggctgttgc
                                                                        1140
 tawgtccaga taccctcagt tttgaatggt caatggatgc tgtgcctctg ctcaaaacag
                                                                        1200
 tttgtgactg gagaaaccta cacactgtgg gccttctawa atgggactcc ttctccttgg
                                                                        1260
 cctaactaag ggtttgaara agcccgaggc gtt
                                                                        1293
<210> 34
<211> 1699
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (9)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (1692)
<223> n equals a,t,g, or c
<400> 34
ggcatctint atttagcaca atgittitaa ggittatica igitgiagca aggiacgcaa
                                                                         60
ttgtttttca tttaaagaaa aagtctcaat gctattacaa ttttccatat tctttgcacc
                                                                        120
tgtggtctgt ctccctaaat atagcccctt tatgaaggag gaatgcaaag ctgatccaac
                                                                        180
tagagactac aaattccttt atatttatat agaaaggggc acatagtaat gaattggaag
                                                                        240
ccatatccaa gctagaatca tctagattta gtgagattga ctagtgcaac ccaattttt
                                                                        300
gcactcatcc cctgtccatc aggtacctgg aaatgattry aawgattttg aactaggtta
                                                                        360
ctggtataat catactgctg ttgagattag caggcaaatt accaagttag ttttttattg
                                                                        420
gagggggaga ggtcaatgtg tgagggtgca tagtggagac tggggaccag gctgacaaag
                                                                        480
atgaattgtt ttaggtagtg atgactttga ggtaatggga taagtgagtg aaaatgactg
                                                                        540
gttggcgttg gagatgggat ggagatggag cttggagaaa aagaatagca ctagtaaatg
                                                                        600
gatttagcta gacaaaggag atttacccta ttccatttag cacagtgagg agaggctaga
                                                                        660
cagctaggat gcaataaaaa aaattttaat gagaaatgtg tgtggtagat taattttatt
                                                                        720
aatctcaagt tatagattaa aaaatttaag taccacataa atgccatttg cctttgctaa
                                                                        780
tgttacattt ttatgaagaa ggagccttgc ataaagaatg atataatgga cttttgggac
                                                                        840
ttgagggaga agcttgggag ggggggtaaa ggataaaaga catattgggt gctgtgtgta
                                                                        900
cactgcttgg gtgacaagtg gactaaaatc tcagaaatca ccactaaaga acttatctac
                                                                        960
ataaccaaaa atcacctgta ccccagaaac tattgaaata aaaaaaaaga aggggacttg
                                                                       1020
gacagatage egtattettt gecaaattat agttacatte tgeteatggg ggattaggag
```

gttcaatgga agaaaggccc cactcagctt tctcccctct taaaatgttg ccttgtaaat

1080

```
tagggaattt tgcataaagc tctgaccttt acttccaagg cctttactga gaatgggttt
                                                                      1200
 ggatacttgg agatagatcc tgactcccta tccctcctag atctttattt atcctatttg
                                                                      1260
 gaacccaggg aaatggcctt aaagctgatg aaccacaggg tgtccaagtc atggagctat
                                                                      1320
 tgaggttctc cccaagtatc ttttaaattg ctgcatttgg gatgggcgca gtggcttaca
                                                                      1380
 cctgaaatcc cagcactttg ggaggctaag ttgggaggat tgcttgggtc tgggagttta
                                                                      1440
 aggccagcct gggctagatg gtgagcctct gtctctattt aagaaaatta gaaattagcc
                                                                      1500
aggcatggtg acacaccagc tacttataat gctgaggcag gaggatcact tgagcccagg
                                                                      1560
agtttgcggc agacagtgag ctatgattgt gccactgtac tccagcctgg gtgacagagc
                                                                      1620
aagaccctgt ctcttattta aaaaaaaaa aaaaaaaaa actcgagggg gggcccgtac
                                                                      1680
ccaatcgcct tncatgatg
                                                                      1699
<210> 35
<211> 1820
<212> DNA
<213> Homo sapiens
<400> 35
ggcacgagaa ggaatgagag ataaagaaag agacaggtga catctaaggg aaatgaagag
                                                                        60
tgcttagcat gtgtggaata ttttccatat tatgtataaa aatattttt ctaatcctcc
                                                                       120
agttattett ttattteeet etgtataaet geatetteaa tacaagtate agtatattaa
                                                                       180
atagggtatt ggtaaagaaa cggtcaacat tctaaagaga tacagtctga cctttacttt
                                                                       240
tctctagttt cagtccagaa agaacttcat atttagagct aaggccactg aggaaagagc
                                                                       300
catagettaa gtetetetgt agacagggat ceattttaaa gagetaetta gagaaataat
                                                                       360
tttccacagt tccaaacgat aggctcaaac actagagctg ctagtaaaaa gaagaccaga
                                                                       420
tgcttcacag aattatcatt ttttcaactg gaataaaaca ccaggcttgt ttgtagatgt
                                                                       480
cttaggcaac actcagagca gatctccctt actgtcaggg gatatggaac ttcaaaggcc
                                                                       540
acatggcaag ccaggtaaca taaatgtgtg aaaaagtaaa gataactaaa aaatttagaa
                                                                       600
aaataaatcc agtatttgta aagtgaataa cttcatttct aattgtttaa tttttaaaat
                                                                       660
tctgattttt atatattgag tttaagcaag gcattcttac acgaggaagt gaagtaaatt
                                                                      720
ttagttcaga cataaaattt cacttattag gaatatgtaa catgctaaaa ctttttttt
                                                                      780
tttaaagagt actgagtcac aacatgtttt agagcatcca agtaccatat aatccaacta
                                                                      840
ccatggtaag gccagaaatc ttctaaccta ccagagccta gatgagacac cgaattaaca
                                                                      900
ttaaaatttc agtaactgac tgtccctcat gtccatggcc taccatccct tctgaccctg
                                                                      960
getteeaggg gacetatgte ttttaataet eactgteaea ttgggeaaag ttgettetaa
                                                                     1020
tecttattte ceatgtgeae aagtettttt gtatteeage tteetgataa caetgettae
                                                                     1080
tgtggaatat tcatttgaca tctgtctctt ttcatttctt ttaactacca tgcccttgat
                                                                     1140
atatettttg caccegetga actteattte tgtateacet gacetetgga tgccaaaacg
                                                                     1200
tttattctgc tttgtctgtt gtagaatttt agataaagct attaatggca atatttttt
                                                                     1260
gctaaacgtt tttgtttttt actgtcacta gggcaataaa atttatactc aaccatataa
                                                                     1320
taacattttt taactactaa aggagtagtt tttattttaa agtcttagca atttctatta
                                                                     1380
caacttttct tagacttaac acttatgata aatgactaac atagtaacag aatctttatg
                                                                     1440
aaatatgacc ttttctgaaa atacatactt ttacatttct actttattga gacctattag
                                                                     1500
atgtaagtgc tggtagaata taagataaaa gaggctgaga attaccatac aagggtatta
                                                                     1560
caactgtaaa acaatttatc tttgtttcat tgttctgtca ataattgtta ccaaagagat
                                                                     1620
aaaaataaaa gcagaatgta tatcatccca tctgaaaaac actaattatt gacatgtgca
                                                                     1680
tctgtacaat aaacttaaaa tgattattaa ataatcaaat atatctacta cattgtttat
                                                                     1740
1800
aaaaaaaaa aaaaaaaaaa
                                                                     1820
```

<sup>&</sup>lt;210> 36

<sup>&</sup>lt;211> 2572

<sup>&</sup>lt;212> DNA

<sup>&</sup>lt;213> Homo sapiens

<sup>&</sup>lt;220>

<sup>&</sup>lt;221> SITE

<sup>&</sup>lt;222> (13)

```
<400> 36
 atteggeaca ggntagggtg ggggeagttt agtteecaat ggatatttet ggtttttgea
                                                                          60
 gaaaaagtag gaaagggaag tgggatggtt tacctctttg tcaggaaagt taggtaacta
                                                                         120
 ttagtaaaaa acaattatac actttaaaat cctgcaatta ttttacagaa agcactaaaa
                                                                         180
 ctgcatgcat gggaagatca ctccatttca gatgtatttg ttacacagta tcttgtttat
                                                                         240
 gctgtgctta gtaggcatgg ttgaattcaa taaaagcaca cgtgaatgca ttttatttaa
                                                                         300
 gacactatgg ctaataccac tgtttacata taaactggcg tatctatgtg agaaactcaa
                                                                         360
 gtttgtgaaa ttctgtgcat ctttgctaat tgctgtgttt gatcattgac atttctgaca
                                                                         420
 tgccacatgg gcctgcgggg ctgtcatccc ctggggctga caactggtac tcggcccgtc
                                                                         480
 cttgtaatcc agcagtattt tttcatacat ttgaaacatt tagaggaaaa ttcagtaatt
                                                                         540
 gaataatgtt tgtaaatatt ctgatcgaaa atgaaaaaat tccccttaat gaaacctgaa
                                                                         600
ctctgcttct gattagctta tatgacttaa agcttcactt cagttccctt gaaaccatta
                                                                         660
catcttttat aaaatgaaag cactaagcaa tccctaaggt ttttctcaac atgttgggaa
                                                                        720
gccaatttta ttttatagca taatgtgttt attcttactt gatcatatct tttttttca
                                                                        780
raaacacaga aaaagaaagt gcttggtcac ctcctcccat agaaattcgg ctgatttccc
                                                                        840
ccttggctag ccccagctga cggagtcaag agcaaaccaa gaaaaactac agaagtgaca
                                                                        900
ggaacaggtc ttggaaggaa cagaaagaaa ctgtcttcct atccaaagca aattttacgc
                                                                        960
agaaaaatgc tgtaatttct tgggaagatt ttaatgtaca cctatttgta aagtcatcag
                                                                       1020
aatagtgtgg attattaaat atctägtttg gaagaaaata atttatataa attattgtaa
                                                                       1080
atttttatgt aaacagaagg tetteaataa gtaaagtaae teeatatgga gtgattgttt
                                                                       1140
cagtccaggc aatttttcta ttttatatta agacttcata catttatata tgtaaatatg
                                                                       1200
gcttattaat ggaatgttaa ataaaatgta tacttcacag tcgtttgtgt cttggatttt
                                                                       1260
tgaaagggag gggatatctg tttaaatagt tttatatgct cattggtctc attttctcta
                                                                       1320
taattaaaat actagaccag tottaaaatg gggatgattg aagtattgat atttotttt
                                                                       1380
acagttacta ttttataatt tatgcacttt gattctgtga ttcagatttc taatcagaaa
                                                                       1440
atgtattttt ttgtttttgg ctgttactat gttaaaattg aattatgggc atgtcatttt
                                                                       1500
gccatctttg tagtttcaca aattttgtgt aatctacctc aaatgaataa tccaagtatt
                                                                       1560
ggttaactat aatgttggca tctcttattc ggcaagctta aaggctcttt aaagtcttaa
                                                                       1620
ttagtcaaag actaatccag gttagattga ccggttcact gctcacttgc aaccttatca
                                                                       1680
aagggtttga caaagggaaa tgtaaaataa atctgtttat ggatattgag tgcatcttgt
                                                                       1740
atgtgcctaa tattgatagg atgagatgtc tgaacaaatt tttataatat tgctgtgaag
                                                                       1800
gagettgeta ttgaaccaca gaaateesty aatatteagg ttttaaaact ggeaaattet
                                                                       1860
cacaggacct caggcacaga ttattgaggt tgggagagag tgagtagatg tagaaaagga
                                                                       1920
gaaaaacaac acacgccctg ttctctacag tacaactgtg tgcaattaag caatggtact
                                                                       1980
tgatgtaggc tctaacactc atcaataaat aagtgttgta aaataattta taacaggtaa
                                                                       2040
togatagtgt gtaatgaatg gactattaat aattgattat ctagaaacga actgctttcg
                                                                       2100
tgggctttta atattttaat gtgaagcata tgcagtgtgc tttctgcatt tattttycta
                                                                       2160
ccaaataata cagataatga gaaattggtg aaaatgccta cgcaaagtgt tgacagtgtg
                                                                       2220
aaagcagtgc gagtgcggcc ttttagtcag gttagtgatg gatgttacgc tgccttgttg
                                                                       2280
aaaatttcac tgactttgat tttattactt ttttaatgat agttatcaaa cttgtattta
                                                                       2340
agctgcttgt catttatgga atattgaact tatttaaatg aacttgttaa atgaataaag
                                                                       2400
agctaaacat aattcagtaa acaatteett tgegeaagta geacaataaa catggatgea
                                                                       2460
acgtatgtca agttaatact tttttaaacc aacgcaattt ggtgaatata gatgtgtggt
                                                                       2520
acctgttttt aaaaaaaaaa aaaaaaaaaa aaaaaactcgt ag
                                                                       2572
```

```
<210> .37
```

```
ggcagaggaa aggctgtcag ggtgaaaata ctcttcttgc ccttcggctg agataattct 60 gaagcatatt ttacttagtt ttctagagtt cttcttggta attaatgcaa tcaagctcca 120 gtctcctgct gtgatgactg ccttcataac atacccttta ttatttatct gtcttccctc 180 cgtatctcac ttcctacctg ttcctacttg tctatttccc tgtgagggac tgaactgtga 240 gcccctcaga ttcaacgtac gaagccccta aatttatttg ttcgagtctg aagccaaagt 300
```

<sup>&</sup>lt;211> 704

<sup>&</sup>lt;212> DNA

<sup>&</sup>lt;213> Homo sapiens

<222> (38)

<223> n equals a,t,g, or c

```
20
 acctaagaat gtggctttat ttggagatac agctttaaag aggtgatgaa attaaaatga
                                                                        360
 gatcatgaag gtacactcta atccactatg actggtgtcc ttataagaag agattaggac
                                                                        420
 acaacacaca cagagggaat cccatgggca gacacaggga gaacacagac atctgcaagc
                                                                        480
 caagggcagg agcctcagaa gaaaccaaac ctgctgacac cttgatctca gatttcagcc
                                                                        540
 tccagaaatg tgagaaaaat aaatttctgt tgtttaagcc acctagcctg tgatactttg
                                                                        600
 ttacggcage ccaagetaat taattcacte ecaattaaae tgttegeeet tgaaaaaaa
                                                                        660
 704
 <210> 38
 <211> 437
 <212> DNA
 <213> Homo sapiens
 <400> 38
 ggcacgaget gaattetaca cateteteta gteeetetga ageeecacet etggageget
                                                                       60
 gcctctgatc accccagccc acagtgatct gagttcacag agcacatcct gtttgaatgc
                                                                        120
 cccatttgaa tcacagccta ttcctctttt tgagtgttgg ttgtgcctta agtgcacaga
                                                                        180
 tggcttttca ccagctggac ctcgagcagc ctgaggatgc caccctgcct tctgagccat
                                                                        240
 tettecatea caetgtagtg ceacageget catttagtag gattttggta aacatgggte
                                                                        300
aactaagtga gacactggca gagcaaggtt atatttagtg ctagaaagga cctacaacat
                                                                       360
ggtgacttcc tcctagtcta gagaatgtag gccctgacgc tttgatattc ccaataagca
                                                                       420
 aaaaaaaaa aaaaaaa
                                                                        437
<210> 39
<211> 943
<212> DNA
<213> Homo sapiens
<400> 39
gtattttcaa gggtctgtcc tgttatagca cataacggaa cttcattcct tttttaaaag
                                                                        60
atataattca tgtaccaggt gattcacccc tttaaagtct caaattcagt ggtttttagt
                                                                       120
atatttccag aattgtgcag ttatcactag gagcaatttt agaatgtttt catcaccgg
                                                                       180
aaagaaactc tatatccata cgcagcctct ccccatttct ccccaacccc cagccctagg
                                                                       240
caaccactca totgetttee gtgtetgtag gattgettgt totggaaatg ttgtatacat
                                                                       300
ggaatcatgc actgtgaact cttgtgtgtc acagaaggat catgtttcca tggtgcgtct
                                                                       360
gtgtcatagc atgtatcagt gcagtaaccc cccttatcca aggttttact ttctgcagtt
                                                                       420
tcagttaccc acagtacagt acagtaagat attttgagag agagaccaca ctcacattac
                                                                       480
ttttattgta atatatcgtt ataattgttc tatttgatta ttgttgttaa tctcttactg
                                                                       540
tgccttattt agaagttaga ctttgtcata agtatgtatg tataggagaa aagatagtat
                                                                       600
atataaggtt tggtgctatc cacagtttcg gacatcccct gggggtcttg gaatgtawcc
                                                                       660
tgtggataag cgggaccact gtacttcatt cctttttatt gtcaaataat attycatkgk
                                                                       720
gtggctawgc catawtttgc cyattcattc gtcagttggt agacatttga ggtgtttcca
                                                                       780
twttttggct tttgtgaaga atcctaggcc gggcacagtg gctcatactc ctgggacctt
                                                                       840
gggaggccaa gacgggacga tcacttgagc tcaggaattt aagaccagcc tgggcaacat
                                                                       900
agtgagactc tgtctctaca aaaaaaaaaa aaaaaaactc gag
                                                                       943
<210> 40
<211> 1875
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
```

```
21
 <400> 40
 aagcagccct cgtcggaagc cctaccgtgc caactggncc ctcctcccga cctgctcccg
                                                                          60
 gctcgtgccc cgtcccaccc aaaagtgggt aaaggttgcc ggcgccggca ctgcagctgg
                                                                         120
 ggctgagaag ccaggacggc ccgagaactg acagacggag tgacagacgg actgaccatg
                                                                         180
 geegaeeage caaaaceeat cageeegete aagaacetge tggeeggegg etttggegge
                                                                         240
 gtgtgcctgg tgttcgtcgg tcaccctctg gacacggtca aggtccgact gcagacacag
                                                                         300
 ccaccgagtt tgcctggaca acctcccatg tactctggga cctttgactg tttccggaag
                                                                         360
 actettttta gagagggeat caeggggeta tateggggaa tggetgeece tateateggg
                                                                         420
 gtcactccca tgtttgccgt gtgcttcttt gggtttggtt tggggaagaa actacaacag
                                                                         480
 aaacacccag aagatgtgct cagctatccc cagctttttg cagctgggat gttatctggc
                                                                         540
 gtattcacca caggaatcat gactcctgga gaacggatca agtgcttatt acagattcag
                                                                         600
 gettetteag gagaaageaa gtacaetggt acettggaet gtgcaaagaa getgtaceag
                                                                         660
 gagtttggga tccgaggcat ctacaaaggg actgtgctta cccttatgcg agatgtccca
                                                                         720
 gctagtggaa tgtatttcat gacatatgaa tggctgaaaa atatcttcac tccggaggga
                                                                         780
 aagagggtca gtgagctcag tgcccctcgg atcttggtgg ctggggggcat tgcagggatc
                                                                         840
 ttcaactggg ctgtggcaat cccccagat gtgctcaagt ctcgattcca gactgcacct
                                                                         900
 cctgggaaat atcctaatgg tttcagagat gtgctgaggg agctgatccg ggatgaagga
                                                                         960
 gtcacatcct tgtacaaagg gttcaatgca gtgatgatcc gagccttccc agccaatgcg
                                                                        1020
 gcctgtttcc ttggctttga agttgccatg aagttcctta attgggccac ccccaacttg
                                                                        1080
 tgaggctgaa ggctgctcaa gttcacttct ggatgctgga agctgtcgtt gaggagaagg
                                                                        1140
agtagtaagc agaactaagc agtcttggag ggcaagggga ggggaatggt gagatccgag
                                                                        1200
ccctgtgcat ggacttggtg agactgttgc cttaatgaca tcctgcaccg tgtataactt
                                                                        1260
agtgtgtcat tttgaaactt gaattcattc ttatcaattt aagggatctt aaaaggattt
                                                                        1320
ggaaatggaa caagtagctt ccagaccaga tactacctgt ggcaagaatg ctgcctacca
                                                                        1380
gttaactgct ggtcctacca cagtcaaagt attcctyakt aaagagwgaa tctcaggttc
                                                                        1440.
tcactggagg cactgtgcat attttcaacc agatcaccag gagctgagat cttcttcagt
                                                                        1500
ccctagccag gaatacccat ttgatttcca gggtgccatc taatcctggg ctgtacatgt
                                                                        1560
ggatatggac ttgaggccca cctctgtgtc caagtggatt gagcatatat gcctaggagg
                                                                        1620
agatagactg ttaatcgttg gattttgatt ttttttttt atgcctgcaa ataatcaaaa
                                                                        1680
gtaaaactgg agtagcctaa ttttctggga gcaggtggag aactttccct cctacacagt
                                                                        1740
gaggacagtc ccagtctgct gggataagtg agaaagccca gggtgtagga aggccctttt
                                                                        1800
tacatáctet ttteteatga gageteacta ttttaacaat aaacaataaa egttgtttet
                                                                       1860
aattttaaaa aaaaa
                                                                       1875
<210> 41
<211> 490
<212> DNA
<213> Homo sapiens
<400> 41
aattcggcac gagaaaagct tagagaagga aatagtaagt agatgaccag ggctactact
                                                                         60
gagttcccct cccctaaatt tagcacgttg cttgtcctgg tattatcttt actgagagct
                                                                        120
cacatactta ttccaaagga gcctcttcag tctagctgct tactgaaaac actatattgg
                                                                        180
gcctgttcat gtaatagtga tttcattcgt tgcattctta gggaagtttc cggtaaaata
                                                                        240
tggagattta gtaaaacctt ataattatat ttggggtcaa aactagtttg gaatatttta
                                                                        300
atagtgtaac ttaaaattaa caaaggaaag tttccccccg cctcctccac ccagtgtttg
                                                                        360
tgctttacca taacattatt aagactggta aagtgtaatg acatatcaaa ttgcaaagtc
                                                                        420
tagcaaatac tgtagcaaac cctaaaacac tccccaccgc cccccaaaa aaaaaaaaa
                                                                        480
aaaactcgag
                                                                        490
<210> 42
<211> 786
```

<sup>&</sup>lt;212> DNA

<sup>&</sup>lt;213> Homo sapiens

<sup>&</sup>lt;220>

<sup>&</sup>lt;221> SITE

```
22
    <222> (770)
    <223> n equals a,t,g, or c
    <400> 42
    gatatgtttt aattatctga tttagatgat ctacttttta tgcctggctt actgtaagtt
                                                                          60
    ttttattctg atacacagtt caaacatcat tgcaacaaag aagtgcctgt atttagatca
                                                                         120
    aaggcaagac tttctatgtg tttgttttgc ataataatat gaatataatt taagtctatc
                                                                         180
    aatagtcaaa acataaacaa aagctaatta actggcactg ttgtcacctg agactaagtg
                                                                         240
    gatgttgttg gctgacatac aggctcagcc, agcagagaaa gaattctgaa ttccccttgc
                                                                         300
    tgaactgaac tattctgtta catatggttg acaaatctgt gtgttatttc ttttctacct
                                                                         360
    accatattta aatttatgag tatcaaccga ggacatagtc aaaccttcga tgatgaacat
                                                                         420
    tcctgatttt ttgcctgatt attctctgtt gagctctact tgtggtcatt caagatttta
                                                                         480
    tgatgttgaa aggaaaagtg aatatgacct ttaaaaattg tattttgggt gatgatagtc
                                                                         540
   tcaccactat aaaactgtca attattgcct aatgttaaag atatccatca ttgtgattaa
                                                                         600
   ttaaacctat aatgagtatt cttaatggag aattcttaat ggatggatta tcccctgatc
                                                                         660
   ttttcyttaa aatttctctg cacacagg acttctcatt ttccaataaa tgggtgtact
                                                                         720
   780
   ggccgc
                                                                         786
   <210> 43
   <211> 1676
   <212> DNA
   <213> Homo sapiens
   <220>
   <221> SITE
   <222> (798)
   <223> n equals a,t,g, or c
   <220>
   <221> SITE
   <222> (927)
   <223> n equals a,t,g, or c
   <220>
   <221> SITE
   <222> (944)
<223> n equals a,t,g, or c
   <220>
   <221> SITE
   <222> (974)
   <223> n equals a,t,g, or c
  <220>
   <221> SITE
  <222> (1035)
  <223> n equals a,t,g, or c
  <220>
  <221> SITE
  <222> (1058)
  <223> n equals a,t,g, or c
  <400> 43
  acgagcagat teceaagaag gtacagaagt etttgeaaga aaccatteag teeeteaage
                                                                         60
  ttaccaacca ggagctgctg aggaagggta gcagtaacaa ccaggatgtc gtctcctgtg
                                                                        120
  acatggcctg caagggcctg ttgcagcagg ttcagggtcc tcggctgccc tggacgcggc
                                                                        180
```

	23	
	tectectgtt getgetggte ttegetgtag getteetgtg ceatgacete eggtea	caca 240
	gctccttcca ggcctccctt actggccggt tgcttcgatc atctggcttc ttacct	gcta 300
	gccaacaagc.gtgtgccaag ctctactcct acagtctgca aggctacagc tggctg	gggg 360
	agacactgcc gctctggggc tcccacctgc tcaccgtggt gcggcccagc ttgcag	ctgg 420
	cctgggctca caccaatgcc acagtcagct tcctttctgc ccactgtgcc tctcac	cttg 480
	cgtggtttgg tgacagtctc accagtctct ctcagaggct acagatccag ctcccc	gatt 540
	ccgtgaatca gctactccgc tatctgagag agctgcccct gcttttccac cagaat	gtgc 600
	tgctgccact gtggcacctc ttgcttgagg ccctggcctg ggcccaggga gcactg	ccat 660
	gaggcatgca gaggtgaggt gacctgggac tgcatgaaga cacagctcag tgaggct	gtc 720
	cactggacct ggctttgcct acaggacatt acagtggctt tcttggactg ggcactt	gcc 780
	ctgatatece ageagtange cetgeettee tggecaetga tttetgeatg ggtagae	cat 840
	ccaagactgc agcgggtaga aggtggcagt tcttcatggg agtcttttta acttggt	gcc 900
	tgagttetet cetaageaag tggeeanttg eeteeacete agtnetteea tetttgg	ggtg 960
	ggggacaggg gccnagcaag catctcagcc tcctacccac aattccactg aacactt	ttc 1020
	tggccctact gcacntggcc cccagcctcc atccttgngc tggtagcctc tcacaac	tcc 1080
	gtecttgece tttgeettee actteettee ateteattte taaaceceaa acagete	atc 1140
	tctaaaaaga tagaactccc agcaggtggc ttctgtgttc ttctgacaaa tgattcc	tgc 1200
	ttctccagac tttagcagct cctgatccca ttcttggtca cagctctagc cacagca	gaa 1260
	ggaaaggggc ttgcagaaga atatagcacc gaattgggaa acagcagcct cacctcc	acc 1320
	tgaagcctgg gtgtggctgt cagtggacat ggggagctgg atggaaatgc ctctcac	ttc 1380
	aaaatgccca gcctgcccca aatgcctcta agcccctccc tgtcccctcc cttgtag	tcc 1440
•	tacttettee aacttteeat teeceateat getgggggte ttggteacaa ggeteag	ctt 1500
	ctctccactg tccatccctc ctatcatctg tagagcagag cacaggcagt tgtgtgc	ctt 1560
	gggcccaggg aaccetecat caacetgaga caggactcag tatatggtte ttgggta	tgc 1620
	cctaccaggt ggaataaagg acacagattt gatttctaaa aaaaaaaaa aaaaaa	1676 <sup>.</sup>
	<210> 44	
	<211> 766	
_	<212> DNA	
	<213> Homo sapiens	
	<400> 44	
	ggcacgaget tttgetetea tttgeettea cagaggeeae tecacetgte eggatee	agc 60
	tgtctggtca tggtttggtt tatttatttt gtccttcagg ggctgttttg ccctaaga	aat 120
	gagggggctt cccctggtct gcagttccca actttatccc ttgctggcca tgcgagc	cca 180
	gccctggtgc ctcatgggat gggggggtag gggtccccag gatcttctgg aggaaggt	
	gcatggatgg atgggctgta tetgtgtttt ceetetggga gteteatggg teeageat	ca 300
	ggcctgaggt cagcaacagg gaaagagggt gggcacgggg agggcttggc cccgccta	atc 360
	tagaggettg cetegggeee eteettgggg aaggtttgeg tgeagagetg caagggag	gag 420
	ggttccagaa gcattgcctt ttgcctcgtc taataggatc cttaggacac tgtgggct	tt 480
	aggaatgact atagatgctc acacgtgttt aaagtgacat ttggagatgc tctcagtc	cct 540
	gtggcatctg gcacgaagtc tccaagaagc cactttgcct cttctccctt caagcaca	aag 600
	ctttactgca aaagggccag tcgcgtttct atttctctcg atcccaggct tctgcgga	acc 660
	gacgatacgt ttaaatgttg ttctagtaaa tattcttgaa tgtattaaaa tggctgaa	ac 720
	aacaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaa	766
	<210> 45	÷
	<211> 1021	•
	<212> DNA	-
	<213> Homo sapiens	
	<400> 45	
	gtaatteett aaacataeca tetgteacag ttaatetaga tttgtaaata ggtagtaa	tt 60
	tatagaatti ttaaagcgta aaatccggta atattaaaag ataggtaaac ctaggcct	gg · 120
	aaagctgtta tttggctaaa attgcacagg aggccatgaa cagaggcaag tgccccag	ag 180
	actccacttt cattcctaac tgttctcaaa ttaatgctca tgattgagta ttctcagt	gc 240
	aactcgtaga gtttgataag taaaagttac atgcccctgt tttcctagca tgatattc	ac 300

aactcgtaga gtttgataag taaaagttac atgcccctgt tttcctagca tgatattcac

			•	24			
	tgttatcaa	a gacaagagg	c agaccattca	a ttcattctca	a aaacactgaa	a tgccattctg	360
						c tctccaccta	420
	acaagggac	a gttttaatt	a tagattgtc	t tectattaag	g tatgagttt	agtaggcatt	480
	aaaaatcgt	a attagtttg	a taatatgaga	a cccaacccta	a acttgccaga	a agagtaatca	540
	gttcatgaa	c cattgatati	t tcctgtatat	t ttcatgaatg	g tgacttcagt	cattctagtg	600
						ctttttatac	660
						ctttgttttg	720
	atttggctt	t taggtattaa	a aataaggcco	agatcactaa	a aaattagtaa	cagagggaga	780
	cctctaata	g atttaaagto	c agttaattct	ctctgaaatt	tgatgttttc	ttctataaag	840
	aataactcta	a aaataggcat	cttcccagga	a ctttccattc	tcaggaaaag	acctagttac	900
	gtataaaaa	a taacttctad	tgctttatgt	agtcatatag	gtctgcctaa	aataagaatt	960
	tgtatttaat	aaataccaaa	attttcaaat	ggtaaaaaaa	aaaaaaaaa	aaaggggggg	1020
	С						1021
	<210> 46						
	<211> 1873	•		,	•		1
	<212> DNA						
	<213> Homo	sapiens					
						•	
	<400> 46						
	ggcacgagct	caggctcccg	tcggacttca	cttggccaca	tccttcacta	ctctccttcc	60
	ttatgcttta	tttaacacat	ttccacgaga	catgtgttcc	catgaccttc	ttccatgtcc	120
	acctccacag	ttttgctcag	gttctcgttc	cctctcccag	gcctctctcc	actctatact	180
	ttcaggaatt	ctacccatgc	aaagcccatc	tcagcttcca	cctcactcct	gacttgacac	240
	ctcctcatgc	agcctgcctg	cctggcgcct	tgtctagatg	ctctcacctc	gttctgcctt	. 300
	ggattactaa	aacttacttt	ctgtcttgct	ttctttcctt	ctggaġttct	tgagggggag	360
				tcccatccac			420
				atggtgaaag			480
				attacaggcc			540 <sup>°</sup>
	aaaaaaggtg	aaatagtgtc	aatacctaag	caaaatacca	tgągaatata	aatcaaagtg	600
	tgaacaggag	taatattaag	acagaaaggc	aatggttctc	ttctggaacc	attagcattt	660
	aaatacagaa	aagaaaatgc	accattttaa	cagctgcaga	agataataac	agacacaatt	720
	atttttccct	aactagatgc	catgccccat	gtacagtagt	tcctaatcat	cccctcatct	780
	tagtctcata	acaaccctat	tattgtctct	atgttacgta	ggaggaaact	gaggtaccga	840
	gcagttaatt	aaccttttcc	atcatgcaac	cagcaaggca	gagctaggat	ttgtatccca	900
	gtagcacctt	ttccagattc	aagctcaact	cctaaattct	cctgcgtctt	cactgtattg	960
	tttttacaac	acatttgcag	gttgtgggct	aagtcaccgg	ctactgagag	ataaagaagt	1020
	aacactccta	tgaattttac	atttctggct	gggcaccgca	gctcacacct	gtaatcccag.	1080
-	cactttagga	agctgaggca	ggagaattgt	gtgagcccag	aagtttgaga	ccagcctggg	1140
	caatatagcc	agaccccatc	tcaaaaacaa	ttgtgcattt	ctaatactca	ctgagcccct	1200
	gctatcccct	ggctcagtgt	acattgctct	atatctccta	gcaaacccag	gagctatgta	1260
	tgaactgaaa	ccctggttaa	atagcttggt	caaagtcaca	cagctcaggt	gggggaggct	1320
	gggtttaaag	gcaggctgct	gatgctatga	tccatacttg	aggctactgc	tggccacagg	1380
	ctccatctga	ggccctgtag	ggggtgagag	gagaaacccg	gccccagaga	cagggtctga	1440
	accctctgct	gccagccagt	agagaaaaca	gtccctcacc	cacaacgtgg	ggataacact	1500
	gcctaccaca	ccaggcagtg	gaaagaatta	aattaattta	aataaaggag	acagtgcaga	1560
	gtacctgaca	cgcaataagc	actcaatgag	agctattatt	agaggtaact	ctccctgctt	1620
	tcagtctaat	gccatgtttc	ttatcactta	aggtgatcac	cttgttgctc	tttaaaatat	1680
	tatgtatggt	tttctctaag	atacatgtaa	gtgtaaaatg	cagaagaaaa	gcatgcgggg	1740
	acgggggggg	ggaagaaatt	cccttttctt	tattgatcag	cctttccccc	aaaatacttt	1800
	ctcaaggaat	tattaaatac	tcaacatggc	gcctcgtgcc	gaattcgata	tcaagcttat	1860
	cgataccgtc		•		-		1873

cgataccgtc gac

<sup>&</sup>lt;210> 47

<sup>&</sup>lt;211> 621

<sup>&</sup>lt;212> DNA

<sup>&</sup>lt;213> Homo sapiens

```
<220>
 <221> SITE
 <222> (488)
 <223> n equals a,t,g, or c
 <220>
 <221> SITE
 <222> (536)
<223> n equals a,t,g, or c
 <220>
 <221> SITE
 <222> (539)
 <223> n equals a,t,g, or c
 <220>
 <221> SITE
 <222> (548)
 <223> n equals a,t,g, or c
<400> 47
acagagtete getetgttgt ecageetggg caacagagaa aacaaaaagg aaaacaaatg
                                                                          60
atgaaggtet geagaaactg aaacceagae atgtgtetge eeectetatg tgggeatggt
                                                                         120
tttgccagtg cttctaagtg caggagaaca tgtcacctga ggctagtttt gcattcaggt
                                                                         180
ccctggcttc gtttcttgtt ggtatgcctc cccagatcgt ccttcctgta tccatgtgac
                                                                         240
cagactgtat ttgttgggac tgtcgcagat cttggcttct tacagttctt cctgtccaaa
                                                                         300
ctccatcctg tccctcagga acggggggaa aattctccga atgtttttgg ttttttggct
                                                                         360
gcttggaatt tacttctgcc acctgctggt catcactgtc ctcactaagt ggattctggc
                                                                         420
tececegtae eteatggete aaactaecae teeteagteg etatattaaa gettatattt
                                                                         480
tgctgganta ctgctaaata caaaagaaag tccaatatgt ttccattctg tagggnaana
                                                                         540
gggatgcngg cttaaaattc tgagcaaggg ttttttggca gtgcagtgtt ggcactatgg
                                                                         600
aaaacccttg gtcccccgga a
                                                                         621
<210> 48
<211> 1290
<212> DNA
<213> Homo sapiens
<400> 48
ccacgcgtcc ggtcagcggc tcggctcccg cgcacgctcc ggccgtcgcg cacctcggca
                                                                          60
ectgeaggte egtgegteee geggetggeg eccetgaete egteeeggee agggagggee
                                                                        120
atgatttece teeeggggee eetggtgaee aaettgetge ggtttttgtt eetggggetg
                                                                        180
agtgccctcg atgtcatccg tgggtcttta agcctcacca acctttcgtc ttccatggct
                                                                        240
ggagtctatg tctgcaaggc ccacaatgag gtgggcactg cccaatgtaa tgtgacgctg
                                                                        300
gaagtgagca cagggcctgg agctgcagtg gttgctggag ctgttgtggg taccctggtt
                                                                        360
ggactggggt tgctggctgg gctggtcctc ttgtaccacc gccggggcaa ggccctggag
                                                                        420
gagccagcca atgatatcaa ggaggatgcc attgctcccc ggaccctgcc ctggcccaag
                                                                        480
ageteagaca caateteeaa gaatgggace ettteetetg teaceteege acgageeete
                                                                        540
eggecacece atggeeetee eaggeetggt geattgacee ecaegeeeag tetetecage
                                                                        600
caggccctgc cctcaccaag actgcccacg acagatgggg cccaccctca accaatatcc
                                                                        660
cccatccctg gtggggtttc ttcctctggc ttgagccgca tgggtgctgt gcctgtgatg
                                                                        720
gtgcctgccc agagtcaagc tggctctctg gtatgatgac cccaccactc attggctaaa
                                                                        780
ggatttgggg teteteette etataagggt cacetetage acagaggeet gagteatggg
                                                                        840
aaagagtcac actcctgacc cttagtactc tgcccccacc tctctttact gtgggaaaac
                                                                        900
catctcagta agacctaagt gtccaggaga cagaaggaga agaggaagtg gatctggaat
                                                                        960
tgggaggagc ctccacccac ccctgactcc tccttatgaa gccagctgct gaaattagct
                                                                       1020
actcaccaag agtgaggggc agagacttcc agtcactgag tctcccaggc ccccttgatc
                                                                       1080
```

		26			
tgtaccccac ccctatcta	a caccaccct		t ccacctccc	t atattaatat	1140
aacctgtcag gctggcttg	g ttaggfttt	a ctadadcad	a qqataqqqa	a totottatta	1140 1200
aaactaacat gaaatatg	g ttattttca	t ttgcaaatt	u ggataggga t aaataaaca	t acataatet	1260
tgtatgaaaa aaaaaaaa			. addeddddgd	c acataatytt	1290
		,			1290
					•
<210> 49					
<211> 2126			•		
<212> DNA		•	•		
<213> Homo sapiens					
<400> 49	•				
cgtccgcgga cgcgtgggg	g atgaaattg	c cctggaacat	tgtgaatata	a ctaaaagcaa	60
gtgcattgta tgctttaaa	a tggttgtta	t taattttata	ttatgtgat	tttaccttaa	120
aaaaagagaa aatagcctt	a ctctataca	t aataaactca	agatatgtta	a caaatttaca	180
tgtgaaatcc gaaatacta	t aatatttaa	g gaatagetaa	gtagaataa	actgaaattt	240
aacataatga aacatttcc	t taaaaaagag	g aaaagcacag	r taattaaaa	ggaaaataat	300
attttttctc tccattaag	c atgccatta	a ctgagtaaaa	gaatcaagct	gcaattatgt	. 360
aaactacgtt ttctaaaac	c ataaagaaaa	a gaagaaataa	aaaggtattt	gggaaaaaaa	420
tccaaaggta cagtcaact	a cacaaaaaa	a gcttagtctc	attaatcatt	atgaaaatgc	480
aaatggtaac tgaaagaag	a taaaactaca	a attcaaagag	aaagcctaaa	atttcaaccc	540
cccaaaagt ctgggtttt	g gagatctggg	g atggaatagg	gitcctaaco	: tgacaacaat	600
gaaagaacca aactaacct	c aaagtcatga	ctttatttt	atagcaacga	gttgccaaga	660
actgagtcaa aatgtgagg	g aaaacaagca	a cctgcaagga	gaaagaggac	agatgcactt	720
acatagggac agatgcaaa	agacccacta	tgacaagtaa	agctggaata	atcaataaat	780
tcctaaagac aaagtgggg	c tggtcagatt	gggagacggc	tgacagctgc	agaagttggg	840
aaagatccat catcttgaaa	a actttttctc	cacaaaccca	ctgtgatctc	tcaagcaatt	900
ggtaaggaat ccaagagag	ctgtatatga	cacagatcag	ggagagcaga	acacttggga	960
ggtgaccagg tcttggggg	cgagccctta	ı tgaatcggat	tagtgccttt	ataaaagaag	1020
ctcaatggag ttcttgtgtg	g ccttccacta	tgtgaggaca	tagaaagaag	gcaccatcta	1080
tgaaccatga aatgggctct	: catcaacact	gaatttgtga	gcatcttgac	ctgagatctt	1140
acagcctcaa gaagtatgaa					1200
tattttgtta taagagtcca	aatagaccaa	gatattccac	ttaatatgta	ggggaaggca	1260
acaaaaactg ccacacttag	, aatactcctg	atgctgggag	tatgaaaaca	ggaaaaacaa	1320
aaacaaaact gctcttgaag	, gtgaaggagg	aatatcactg	agctcaccaa	cacagccagg	1380
aaaagaacag aagtgtgaga	aggctacatt	cctgagaccc	tgagaaaaag	taacctgcat	1440
aagacagaga tgaaattaco	tactctagtt	atgattgaaa	tcccaaaaag	aaaacaggga	1500
aaaataatgg agcaaaagaa	atattttca	aaataactgc	caaaaatatt	ctaaaagaag	1560
tgacagaaaa tcaaacttca	gatataggaa	actcagagaa	tgtcgaatag	aacaaaaaga	1620
aataagaatt ccatcttgaa	aaatctttga	aaaatcttta	aaaaaatcag	tctaaatttt	1680
atatcttgct ccaatatatg	agatataaat	aggttatcat	caagatatgg	agaaagccat	1740
attcatggaa acactaaaat	aaggctgtgg	aaggactaca	ttgatattag	acacaacaga	1800
gttcggaaca agaaatagta	tcagagatga	gagacaatag	ataatagaat	aatcaattct	1860
caagaagatg taaacatcct	actaattagg	gtatgcagct	aacaacagag	cctccaaata	1920
cgtgaggtaa aacacgaaag	aaatcaaagg	tgaactagaa	aaatccaaaa	ttatatttgc	1980
agacttcaac acttttgtct	tagtaatgga	aagactaggc	acaaactcag	taatcatgtg	2040
gaagataaga acaacagtat		acatccaatc	ttcaatggca	gatactcttt	2100
cctttcaagt gaaaaaaaaa	aaaaaa				2126
•	•		•		
<210> 50					
<211> 1363					•
<212> DNA	-				
<213> Homo sapiens					
<400> 50					
ggcacgagtg gcataggggc	ctcaggtatg	agggctggaa	actotadace	aataaactat	60
gtggcatctc cctcttcact	agccctgcca	cttateceta	agccaggtgca	tacctgatgg	120
ttgagctgta tggggacctc	tgccctgtgg	cctttcctcc	cactgttatt	tctccttaat	180

ttgagetgta tggggacete tgccctgtgg cetttectee cactgttatt teteettggt

```
ttcctgtttt ccagctgtgg gttcccagag gcgtcatttg gaccctgggt agtagttagg
                                                                          240
 gctgagctct ggggttgtgt ggttggagcg gcgtgtgtct tagggctgta ctggcaagtg
                                                                         300
 ggccaaagca gtctaaacac cctggctagg agccagaaac cggggctccg tgtccaaccc
                                                                          360
 gggaageetg ggaageteet eccegteace ttecagatge tgeegeetee atgtgggggg
                                                                         420
 tgttgctccc cgctgggtct ttgcccgagt tctgggggaa gccggatgtg gaggaggacc
                                                                         480
 tgggtgggtg ccagagcact tcatccttaa gctcacctca cctaaatgtt cccacccca
                                                                         540
 cagccaccac cggcacaggc aggaccatgc ttcaacttgc caagagtgtt tccagggact
                                                                         600
 ggtccctctg gttcaacgag tttggtggtt ctcagcacca actgcttatt ggaatcatct
                                                                         660
 gagtagattt cagaaaagaa actgtcaatg cctggcccca gcccctgaga gtctgctgtt
                                                                         720
 attggtctcc agtggaacct gggccccagc atttttcaaa gctccccagg taatttgaat
                                                                         780
 gtgcagtcag agttgaaagc agctgccata tccagtttgg gtctccctgc ctctcccatg
                                                                         840
 tccctgggtt gccccagaaa ttttttctca ttcactgata attttaatga tcaatacaga
                                                                         900
 gtttgcaaaa gtgaagacag acatgtcaga ccaaacactg gattcagtgt tctgttccat
                                                                         960
 gagactgttc catgagttca tagttattaa aaccagaact taagcgggaa actatagcaa
                                                                        1020
 atgatagaaa ctgaattttc tcctcagttt ttaattttta aaaactttta aggctgggtg
                                                                        1080
 cagtggctca tgcgtgtaat cccagcactt tgggaggctg aggtggccag atcatgaggt
                                                                        1140
caggagttga aaaccagcct ggccaacatg gagaaacccc gtctctacta aaaattatct
                                                                        1200
gggtgcggtg gtgggtgccc ataatcccag ctactaagga gactgaggca ggagaatcgc
                                                                        1260
 ttgaacccgg gaggcagagg ttgcagtggg ccaagatcgt gccactgcac tccagcctgg
                                                                        1320
gcgacagaga gagactccgt ttcaaaaaaa aaaaaaaaa aaa
                                                                        1363
<210> 51
<211> 2398
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (1874)
<223> n equals a,t,g, or c
<400> 51
attgcttagt ttgatgtgtc ttgctttaaa tccatttatt tcaacaagct taaagagatt
                                                                         60
tttttttaat ggagatgatt taattttaac aatctgtgat tttctctgaa tcgaacttgt
                                                                         120
gttttggcac ctttcaatct gtggtaacaa atgacaagaa gggtgcaatt cttccttccc
                                                                        180
ttgtgcaggg attttgcctc cccctttctc ccagatgaaa gatatttggg tctctagaat
                                                                        240
aactgtggta cagttagctc cagagtgttt tctttctgga ggcagtttag acaacagcct
                                                                        300
caagtagtgc ttttgttaaa aatatacatg tttttaaaag tgcttgtatt tctaatattc
                                                                        360
ttttctcctt tctcttctag tctgttctct ggggaggcag taaggggccg tggagctggc
                                                                        420
ctcggcctcg gcatcgggag aggctggact tcctgtctct ctgtgctgaa tggctgcgat
                                                                        480 '
ggcgcccgct ctcactgacg cagcagctga agcacaccat atccggttca aactggctcc
                                                                        540
cccatcctct accttgtccc ctgggcagtg ccgaaaataa cggcaacgcc aacatcctta
                                                                        600
ttgctgccaa cggaaccaaa agaaaagcca ttgctgcaga ggatcccagc ctagatttcc
                                                                        660
gaaataatcc taccaaggaa gacttgggaa agctgcaacc actggtggca tcttatctct
                                                                        720
gctctgatgt aacatctgtt ccctcaaagg agtctttgaa gttgcaaggg gtcttcagca
                                                                        780
agcagacagt cettaaatet cateetetet tateteagte etatgaacte egagetgage
                                                                        840
tgttggggag acagccagtt ttggagtttt cyttagaaaa tcttagaacc atgaatacga
                                                                        900
gtggtcagac agctctgcca caagcacctg taaatgggtt ggctaagaaa ttgactaaaa
                                                                        960
gttcaacaca ttctgatcat gacaattcca cttccctcaa tgggggaaaa cgggctctca
                                                                       1020
cttcatctgc tcttcatggg ggtgaaatgg gaggatctga atctggggac ttgaaggggg
                                                                       1080
gtatgmccaa ttgcactctt ccacatagaa gccttgatgt agaacacaca attttgtata
                                                                       1140
gcaataatag cactgcaaac aaatcytctg tcaattccat ggaacagccg gcacttcaag
                                                                       1200
gaagcagtag attatcacct ggtacagact ccagctctaa cttggggggt gtcaaattgg .
                                                                       1260
agggtaaaaa gtctcccctg tcttccattc ttttcagtgc tttagattct gacacaagga
                                                                       1320
taacagettt actgeggega caggetgaca ytgagageeg tgeeegcaga ttacaaaage
                                                                       1380
gcttacaggt tgtgcaagcc aagcaggttg agaggcatat acaacatcag ctgggtggat
                                                                       1440
ttttggagaa gactttgagc aaactgccaa acttggaatc sttgagacca cggagccagt
                                                                       1500
```

tgatgctgac tcgaaaggct gaagctgcct tgagaaaagc tgccagtgag accaccactt

```
cagagggact tagcaacttt ctgaaaagca attcaatttc agaagaattg gagagattta
                                                                        1620
 cagctagtgg catagccaac ttgaggtgca gtgaacaggc atttgattca gatgtcactg
                                                                        1680
 acagtagttc, aggaggggag tctgatattg aagaggaaga actgaccaga gctgatcccg
                                                                        1740
 agcagcgtca tgtacccctg tgagtagacc tcatgcatga tagcattctt gagaaatgtt
                                                                        1800
 ggcacaagga agaatgaatg aatcgccatt atggagagaa tgtgttsttt gtacataggt
                                                                        1860
 gtytagttcy gttngttttt tccctgatgt tgggtagatg agtgcatata catgctagtg
                                                                        1920
 aagaagggga agatactttg ctgtagggtt gtattgttgt agtctaaatg gtggtaattt
                                                                        1980
 ccttttgdag tctaagaaaa ataactagga gacatcttat gtgtaaaatt gtactagtac
                                                                        2040
 ctctttaaga gtgaatttag atttcttttg aaactatata taggacatga taagttaatg
                                                                        2100
 gcctgattgt tgagattttg ttgtttccag taagcaggga caaatgctga gttgacctag
                                                                        2160
 ttacctttgt aggaaattac agttgctttt gattgaactt tcagcagaga gcacacccag
                                                                        2220
 tetteaattt taacaettga gattttetta eattttaagg aetgaeaatt agaaaatget
                                                                        2280
 tcagaatatt taatacatcg cctccaagca cagtctagtt tcacaacctg actctcttcc
                                                                        2340
 tattaaaaaa aaaaaaaaa aactcgrggg ggggcccgta cccaatcgcc cctcatga
                                                                        2398
 <210> 52
 <211> 2234
 <212> DNA
 <213> Homo sapiens
 <220>
 <221> SITE ·
<222> (5)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (136)
<223> n equals a,t,g, or c
<400> 52
ggctncaaag tggtccctgt cggaaagtaa tttaatcaac tggagaactc ccggagtcca
                                                                         60
gcccccaact cccccaccc ccatcccagt gggaatgcca ccaacagccc atctcaacaa
                                                                        120
tttcccaaag taacantctc caggtggaag acctgtgaag tatccccacc cagaaacctt
                                                                        180
ggatactgag tetectaate ttateaatte tgatggttte ttttttteee agettttgag
                                                                        240
ccaacaactc tgattaacta ttcctatagc atttactata tttgtttagt gaacaaacaa
                                                                        300
tatgtggtca attaaattga cttgtagact gaggggattt tggttttggt tttgggtttt
                                                                        360
gtttttttgc ggtgggggg ctggtatttg gaagaattta gctctttatg ttacagaaat
                                                                        420
cttttttgca aggacttaga aatgataatg cttaagattg ttcttgcccm atgtgggaag
                                                                        480
agaatctaag gtttttatat gtcttgcaac ctcatcaaag gaaaattact ggcatcattt
                                                                        540
ycataatttg aaaaaaaag ccaaattaat atatttcttt tttgattcac tttttaagtg
                                                                        600
atcattttta aaactttact tttgacccac tgaatttatt tagatagaag gaaaagagat
                                                                        660
gatgggaggg aagtttagat aaaggatgga agttggtttt atttaaacaa tagcccygtg
                                                                        720
atttccyaat gagaagtgac tagaaattga agaaaccaaa taaggrggrt awtggkcaat
                                                                        780
ttagcyttag tttctcttac tctctcaagc ctgccctgtt taactccaaa gttcatggct
                                                                        840
cataatttga gaaacactgt tttaaacaca ggagaaaaaa atgtccattt taaatcatag
                                                                        900
ctattgaatt ctacaattac aaagaaacaa acaaacaaaa tttgaccaac ccaggcggtt
                                                                        960
aaatttaaac tcttcaggaa aaatttaagc tgttaamatt attcttttc taaatttcta
                                                                       1020
aagtggaggg acagaatttt tcagatttaa aagggcctcc taggtgccca gaaaattagt
                                                                       1080
ggaaagaacc acgictagac gcaictitga tgigtcagag ticcaaggai aaaaagaaac
                                                                       1140
ttttaaagtc ttctatactc agccaggtta tcaatcaaat atgagggcaa aataatattt
                                                                       1200
tcagacagat tttaggcagt ttatcttcca tatatccttt tctttaaggg tatttgtaga
                                                                       1260
tacactccag aaaaacaaga gtgaaatatg aaggaagttg tggggtccag caaacagtgc
                                                                       1320
ttccaaatca gacccctgat agaggtggaa aactttgcaa tgcaacaact gcgtagctgg
                                                                       1380
cttagaggac agcctacaga tggwwcagaa agatgagsat gggattgagg gatcagggat
                                                                       1440
tgaggtctcc aagaataaaa agggacttca tggaaaaagt aggcttgtgg ataattaatc
                                                                       1500
acaggggcaa ataatgcagt taaaataaca acatgacaat caggtggagg aatgtataat
                                                                       1560
aaacccaaat gtggctgggt agagtggctc acacctgtaa tcccagcact ttgggaggcc
```

```
aagccgggca gattacctga ggtcaggagt tcgagaccag cttggccaac atggcgaaac
                                                                        1680
 cccgtctcta ctaaaaatac aaaaattagc caggcttggg ggcgcacgcy tgtagtccca
                                                                        1740
 gctcctcagg agctgaggta ggagaatcac ttgaacccag gaggcaaagg gtgcagggag
                                                                        1800
 ttgagcccaa gatcgcgcca ttgcacccta gcctgggcaa cagagcgaga ttctgtttca
                                                                        1860
 aaaaaccccc aagtgtatta taaggcaata attcctatac gaagcaaact aaaatgcagc
                                                                        1920
 aatattaagg tataaaaaca aagaggaata attccattga accttgattc tggaaacttt
                                                                        1980
 gatccaccca gcagtcatga tgttagactc attgaaaaga atgtatttct aatgcatgat
                                                                        2040
 gcaatcggtc tatagatgtg tcatggaaac ttggttgcaa cttcaagaca aaataaaaag
                                                                        2100
 taaacattta catgaaaaat ggtggatatg gaaggtggag aagagaggag ataacagctt
                                                                        2160
 tatctttcaa aatagagaat tgagagatgg taccaaaagc tgatgaagta aaaaaaaaa
                                                                        2220
 aaaaaaactc gtag
                                                                        2234
 <210> 53
 <211> 538
<212> DNA
 <213> Homo sapiens
<220>
<221> SITE
<222> (502)
<223> n equals a,t,g, or c
<400> 53
ggcacgaget ccaccaccag cagcgggtaa ccccaggcct tgccgaacgt cacggcaaag
                                                                          60
ggcttgaggg ccaggcgctt ggcagcgctg ggctccactt ggatcatgcc tttgacgtag
                                                                         120
gcacgcaagg cagccttgtt tttcttcatc cagatagacg cgcgcttgcg ctcttcgtgg
                                                                         180
gcgtgttcgt gattgttctc atccacggct ttttcgtgca gcagcaagaa gggctgctca
                                                                         240
cgggccagca gacgttcgaa ggtcaggaag gcgtcttccg gcgcaccttc gctaggcgcg
                                                                         300
tcgaaaaaga ttttcaccac cgggaaagtt gaactgtcga gtcgcatggc aaagctcctt
                                                                         360
tgatgagatt gatteteate atagggegee tggegetgga cageattgea cagaatagee
                                                                        420
agaatgtttc gcaatccagc caaggcagtt atcaccatgg ttcatcaccg cctcgaccag
                                                                        480
tacgacccct gccgggtccg cnacgccgcc gcgatccctc gctcgattgt tgcagtgg
                                                                         538
<210> 54
<211> 1484
<212> DNA
<213> Homo sapiens
<400> 54
cggcacgagg gacaataagc taaggtagta tcttggccat cccaggaaac ttgtggcatt
                                                                         60
aggacgatga aggccatgct tcagtgtttt cgtttctatt tcatgagact ttttgtcttc
                                                                        120
ctgcttacaa gtgggaagat gattgacagt gactctacta tgcagggctg ttggtaccaa
                                                                        180
cctgagccct ataggtggca gtccctggag aagtggtcac agaagatgga gctctgatcc
                                                                        240
cctgcttacc tcttcacaac acttgtgtgc aaagatagtt ttagatttgg tttagaagct
                                                                        300
atcctccaga acaggctccc atacttagaa tgtttctagt taaggtaata aattaggcaa
                                                                        360
cccaagtgtg actccactca agtgtccttt tctgtaggca ggaagggccc acaacatggc
                                                                        420
ttaaaatgta gtccatggtt ctggcccaca gtacagtgtg tatctatacc aggtcacctg
                                                                        480
tgttcaatct ggggagcctt cctggccagt ctgagtggca gccagaaggg agctcatagt
                                                                        540
gtctaggaat ctcaggcaaa gtaggtcagg gtactgtggg caggggggat gtgtgtgata
                                                                        600
ggagagggta ccctaaaccc cataccttcc ctccctgacc tgaaaagctg atctcaacag
                                                                        660
ggattcacac agaattaggc tgtgtttttg cattaactgg taggtgactt tctcaaaatt.
                                                                        720
cttaaattca gaaagtattt agtaaacttg aggaaggtat gaaatctgga ggaggcatcc
                                                                        780
aggacccagg ggtttgatag ctttacaggt aggatcatac cacaccaaaa gagcagtgga
                                                                        840
caataagact atatgagcta tatgaagctt ttaggaatca tttaggacag acagagccct
                                                                        900
aaacaaccca ttcatgactt aagttgttgg ctcagtgtat gctggggaca aagaaaaact
                                                                        .960
aacaagccga cctgccttta tgataaattc tagtgtgctt acaagggatg acttcctgag
                                                                       1020
gtgtgatctg tccaccttga agaactccac aactgaagaa ggggagctgt gagaacgtgg
                                                                       1080
```

```
30
  attgttctac aacttgcaca gggtaacaga ggaagtggct gaggcctaga gtcacgtttt
                                                                      1140
  ccagttccct tcgcaaacta tatttcttgg aacgcgaaag gaagctttac ctatttcata
                                                                      1200
  gaagacctgg aatccataac ctcagaaggc aatattattg atagaaaatg tggaaggatc
                                                                      1260
  aggaagttct tagattcttg gatgacagat gcatgttgat gccctatgga gatgtccttg
                                                                      1320
  tgttttgagg tcactgaggt aggaagacct gtctactctt ggtttcacca ctagaacagt
                                                                      1380
  cttgggctgg atgggttata gagctgagcg gctgtgatgg ttctgttttt acattaacaa
                                                                      1440
  1484
  <210> 55
  <211> 1765
  <212> DNA
  <213> Homo sapiens
 <400> 55
 ggcacgagat ttctgggagt cctgcagagt ctagttgcca agtggaacat tcttaaaaag
                                                                        60
 atcgttcaga agtttaccag aattaaaaga tgctgtcttg gaccagtatt caatgtgggg
                                                                       120
 aaataaattt ggagtattgc tttttctgta ttctgtatta ctgacaaagg gcattgaaaa
                                                                       180
 cataaaaaac gaaattgaag atgcaagtga accettgata gateetgtat atggacatgg
                                                                       240
 cagccaaagt ttaattaatc tcctgctgac gggacatgct gtttctaatg tatgggatgg
                                                                       300
 tgatagagag tgctcaggaa tgaaacttct tggtatacat gaacaagcag cagtaggatt
                                                                       360
 tttaacacta atggaagctt taagatactg taaggttggt tcttacttga aatctccaaa
                                                                       420
 480
 ggctttagtt gcccctgaag ctccttcaga acaagccaga agagtttttc aaacctacga
                                                                      540
 cccagaagat aatggattca tacccgattc acttctggaa gatgtgatga aagcattgga
                                                                      600
 ccttgtttca gatcctgaat atataaatct catgaagaat aaattagatc cagaaggatt
                                                                      660
 aggaatcata ttattgggcc catttettea agaatttttt eetgateagg geteeagtgg
                                                                      720
 tccagaatct tttactgtct accactacaa tggattgaag cagtcaaatt ataatgaaaa
                                                                      780
 ggtcatgtac gtagaaggga ctgcagttgt gatgggtttt gaagatccca tgctacagac
                                                                      840
 agatgacact cctattaaac gctgtctgca aaccaaatgg ccatacattg agttactctg
                                                                      900
 gaccacagat egeteteett cactaaatta atttgtetaa gtatttataa ggaagatett
                                                                      960
 aataacagat gttgaaagaa ggagtcaaga ctggcaattg gctggattaa gctaaacact
                                                                     1020
 ggtatcactg attaactgta aataacaatt aaaaacacat tttcagtgtt tatgatatgt
                                                                     1080
 ttaaattatt tgtcctaaag ctttatgtta aagattatcc tattttaccc cttcgtgtga
                                                                     1140
aatttactag caaaattaag ctttcatcaa agttcatcac ttttgcattc agatacttgg
                                                                     1200
tcatttactt accaaattac aaacgcaata ctacagcatt tgtatattaa gtatcacagt
                                                                     1260
tactattgat aaactacttt tgggttttat ttcattgagg cactttttt attgtttgaa
                                                                     1320
tgattccggc ttgtaatata tcagcctcta caatgaaatg cagaagagtt catttttcta
                                                                     1380
agatetgttt tteattagaa atattgacaa ataacacatt gteaacetgg ateetttgae
                                                                     1440
aatttactta actotggcat gttcacaaaa agtagaaact ctaagagacc attaccattt
                                                                     1500
attcacagat gtatagggga tgtattctaa aaactgacag aaaagagaat ctgatagtca
                                                                     1560
acactgttaa cttttactgt gtaattgcca aatacacttt tccaaatttg tcccaacagc
                                                                     1620
cctgtaagcc agctttcttc tatatttata aacacgataa atgcatgaga agatctgtta
                                                                     1680
ttacattagt atattacgtt atttattatg atcctagttg atggcctaaa taaacacctt
                                                                     1740
tttctttaaa aaaaaaaaaa aaaaa
                                                                    1765. .
<210> 56
<211> .1478
<212> DNA
<213> Homo sapiens
<400> 56
ggcacgagga gggcggaagt gggagctgcg accgcgctcc ctgtgaggtg ggcaagcggc
                                                                      60
gaaatggcgc cctccgggag tcttgcagtt cccctggcag tcctggtgct gttgctttgg
                                                                     120
ggtgctccct ggacgcacgg gcggcggagc aacgttcgcg tcatcacgga cgagaactgg
                                                                     180
agagaactgc tggaaggaga ctggatgata gaattttatg ccccgtggtg ccctgcttgt
```

caaaatcttc aaccggaatg ggaaagtttt gctgaatggg gagaagatct tgaggttaat

attgcgaaag tagatgtcac agagcagcca ggactgagtg gacggtttat cataactgct

240

300

cttcctacta tttatcattg taaagatggt gaatttaggc gctatcaggg tccaaggact

```
aagaaggact tcataaactt tataagtgat aaagagtgga agagtattga gcccgtttca
                                                                      480
 tcatggtttg_gtccaggttc tgttctgatg agtagtatgt cagcactctt tcagctatct
                                                                      540
 atgtggatca ggacttgcca taactacttt attgaagacc ttggattgcc agtgtgggga
                                                                      600
 tcatatactg tttttgcttt agcaactctg ttttccggac tgttattagg actctgtatg
                                                                      660
 atatttgtgg cagattgcct ttgtccttca aaaaggcgca gaccacagcc gtacccatac
                                                                      720
 ccttcaaaaa aattattatc agaatctgca caacctttga aaaaagtgga ggaggaacaa
                                                                      780
 gaggcggatg aagaagatgt ttcagaagaa gaagctgaaa gtaaagaagg aacaaacaaa
                                                                      840
 gactttccac agaatgccat aagacaacgc tctctgggtc catcattggc cacagataaa
                                                                      900
 tcctagttaa attttatagt tatcttaata ttatgatttt gataaaaaca gaagattgat
                                                                      960
cattttgttt ggtttgaagt gaactgtgac ttttttgaat attgcagggt tcagtctaga
                                                                     1020
 ttgtcattaa attgaagagt ctacattcag aacataaaag cactaggtat acaagtttga
                                                                     1080
aatatgattt aagcacagta tgatggttta aatagttctc taatttttga aaaatcgtgc
                                                                     1140
 caagcaataa gatttatgta tatttgttta ataataacct atttcaagtc tgagttttga
                                                                     1200
aaatttacat ttcccaagta ttgcattatt gaggtattta agaagattat tttagagaaa
                                                                     1260
aatatttete atttgatata atttttetet gttteaetgt gtgaaaaaaa gaagatattt
                                                                     1320
cccataaatg ggaagtttgc ccattgtctc aagaaatgtg tatttcagtg acaatttcgt
                                                                     1380
ggtcttttta gaggtatatt ccaaaatttc cttgtatttt taggttatgc aactaataaa
                                                                     1440
1478
<210> .57
<211> 1089
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (353)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (528)
<223> n equals a,t,g, or c
<400> 57
cggcacgaga aacgcggtgc ttgctcctcc cggagtggcc ttggcagggt gttggagccc
                                                                      60
teggtetgee eegteeggte tetggggeea aggetgggtt teeeteatgt atggeaagag
                                                                     120
ctctactcgt gcggtgcttc ttctccttgg catacagctc acagctcttt ggcctatagc
                                                                     180
agctgtggaa atttatacct cccgggtgct ggaggctgtt aatgggacag atgctcggtt
                                                                     240
aaaatgcact ttctccagct ttgcccctgt gggtgatgct ctaacagtga cctggaattt
                                                                     300
tcgtcctcta gacgggggac ctgagcagtt tgtattctac taccacatag atnccttcca
                                                                     360
acccatgagt gggcggttta aagaccgggt gtcttgggat gggaatcctg agcggtacga
                                                                     420
tgcctccatc cttctctgga aactgcagtt cgacgacaat gggacataca cctgccaggt
                                                                     480
gaagaaccca cctgatgttg atggggtgat aggggacatc cggctcancg tcgtgcacac
                                                                     540
tgtacgette tetgagatee actteetgge tetggeeatt ggetetgeet gtgeactgat
                                                                     600
gatcataata gtaattgtag tggtcctctt ccagcattac cggaaaaagc gatgggccga
                                                                     660
aagageteat aaagtggtgg agataaaate aaaagaagag gaaaggetea accaagagaa
                                                                     720
aaaggtctct gtttatttag aagacacaga ctaacaattt tagatggtaa ggttcacaaa
                                                                     780
taggttgatt tetttettea getttetgae atgtecagee catetetaat gaggaeteee
                                                                     840
agatcatcac tttatggctg ttaggtgttt cccatatgaa attagaggag ctgggtcagg
                                                                     900
gagacaaaag tottotatta gtottatgga tagotootoo ttgagtgtat tttgtgcaaa
                                                                     960
agattaagaa gctggactct actgccatta aagctgagag aatcctaagg ttaaaaaaa
                                                                    1020
1080
aaaaaaaa
                                                                    1089
```

```
<211> 1772
 <212> DNA
 <213> Homo sapiens
 <220>
 <221> SITE
 <222> (1480)
 <223> n equals a,t,g, or c
 <400> 58
 tegacecacg egteegggag agaacgeegg tggegggget ggtageeegg cageegcagt
                                                                        60
 ggggccacga gcgctggctg agggaccgag ccggagagcc ccggagcccc cgtaacccgc
                                                                       120
 gcggggagcg cccaggatgc cgcgcgggga ctcggagcag gtgcgctact gcgcgcgctt
                                                                       180
 etectacete tggeteaagt titeaettat catetatiee accgtgitet ggetgatigg
                                                                       240
 ggccctggtc ctgtctgtgg gcatctatgc agaggttgag cggcagaaat ataaaaccct
                                                                       300
 tgaaagtgcc ttcctggctc cagccatcat cctcatcctc ctgggcgtcg tcatgttcat
                                                                       360
 ggtctccttc attggtgtgc tggcgtccct ccgtgacaac ctgtaccttc tccaagcatt
                                                                       420
 catgtacate ettgggatet geeteateat ggageteatt ggtggegtgg tggeettgae
                                                                       480
cttccggaac cagaccattg acttcctgaa cgacaacatt cgaagaggaa ttgagaacta
                                                                       540
ctatgatgat ctggacttca aaaacatcat ggactttgtt cagaaaaagt tcaagtgctg
                                                                       600
 tggcggggag gactaccgag attggagcaa gaatcagtac cacgactgca gtgcccctgg
                                                                       660
acccctggcc tgtggggtgc cctacacctg ctgcatcwgg aacacracag aagttgtcaa
                                                                       720
caccatgtgt ggctacaaaa ctatcgacaa ggagcgtttc agtgtgcakg atgtcatcta
                                                                       780
cgtgcggggc tgcaccaacg ccgtgatcat ctggttcatg gacaactaca ccatcatggc
                                                                       840
gggcatecte etgggcatee tgetteecea gtteetgggg gtgetgetga egetgetgta
                                                                       900
catcacccgg gtggaggaca tcatcatgga gcactctgtc actgatgggc tcctggggcc
                                                                       960
cggtgccaag cccagcgtgg aggcggcagg cacgggatgc tgcttgtgct accccaatta
                                                                      1020
gggcccagcc tgccatggca gctccaacaa ggaccgtctg ggatagcacc tctcagtcaa
                                                                      1080
catcgtgggg ctggacaggg ctgcggccct ctgcccacac tcagtactga ccaaagccag
                                                                      1140
ggctgtgtgt gcctgtgtgt aggtcccacg gcctctgcct ccccagggag cagagcctgg
                                                                     1200
gcctccccta agaggctttc cccgaggcag ctctggaatc tgtgcccacc tggggcctgg
                                                                     1260
ggaacaaggc cctcctttct ccaggcctgg gctacrgggg agggagagcc tgaggctctg
                                                                     1320
ctcagggccc atttcatctc tggcagtgcc ttggcggtgg tattcaaggc agttttgtag
                                                                     1380
cacctgtaat tggggagagg gagtgtgccc ctcggggcag gagggaaggg catctgggga
                                                                     1440
agggcaggag ggaagagctg tccatgcagc cacgcccatn gccaggttgg cctcttctca
                                                                     1500
gcctcccagg tgccttgagc cctcttgcaa gggcggctgc ttccttgagc ctagttttt
                                                                     1560
tacgtgattt ttgtaacatt catttttttg tacagataac aggagtttct gactaatcaa
                                                                     1620
agetggtatt teccegeatg tettattett gecetteece caaccagttt gttaatcaaa
                                                                     1680
1740
aaaaaaaaa aagggcggcc gc
                                                                     1772
<210> 59
<211> 1279
<212> DNA
<213> Homo sapiens
<400> 59
ggcacgagtt tattttaaaa tgtacaataa attattgttg actgtagtaa ccctgttttg
                                                                       60
ctatcaaata gtagatttta tttattctaa ctatatttt atatccatta accatcccc
                                                                      120
acatcccccc aatattttag ttttttgagg aactccagtg catcattaat acccactttt
                                                                      180
cctccctcct cctctctcac cactccccaa gccatttcta attcgtctcc aagccttgtg
                                                                      240
taattgttta ttaatatta tttatttggc tgggtgcggt ggcttacacc tgtagtccca
                                                                      300
gcactttggg aagccgaggc ggctgggtcg cctgaggtca ggagttcaag accagcctgg
                                                                      360
ccaacatggc aaaaccccgt ctctgctaaa aatacaaaaa ttagctgggc gtggtgatgc
                                                                      420
acacctgtaa tcccaaccac ctgcgaggct gaagcaggag aatcgcttga acccaggaag
                                                                      480
tggaggaggt tatatata tgagacatat atacacaca acacacaca aaatataaaa
                                                                      540
tatgtgttga tatatata taaacatata tatatgttta tttgtcccct ctttcccatt
                                                                      600
ctcattgctg ctgtccctat taagaccttt atcatcattt ctttggccta attagaatag
                                                                      660
```

		33			
cctctggtct tctagtttt	c attettated		accttttat	t ttotcactaa	720
tgtgatcatt caaaattgc					780
tgaggtgtac ccaacagct					840
tagaaaaggg ggaaaggtg					900
gaaagaagta gacatggga					960
ttgggatcct gttgatcta					1020
tgtccactca gggttaaat					1080
ttgaaggcag catgctcgt					1140
acaaacactc tgcctaggaa					1200
cctccactgt tgtcctgtg					1260
caaaaaaaa aaaaaaaa	- occugacia	cocccccgc	gagaaacac	caagaacgac	1279
					12/3
·				•	
<210> 60					
<211> 1539	•				
<212> DNA				•	
<213> Homo sapiens		•			·
•					
<400> 60			•	, <del>-</del>	
gaattcggca cgagtatcac	tocatatttt	tacccttatt	tttgctcctt	acagcaagat	60
tagtaggtta taaaaattta					120
acatcatact tatttttgtt					180
cttgctgctg aaattgtact					240
atggtttacc tgagcccagg					300
tggttttgct ttttcctctt					360
gagcatgaga gcactttctt					420
agagagtgtt ttttttcta					480
gacaggctat ctttcagtgg					540
ctctgagaaa tgtgtggctt					600
ttgaaaaggg agaataatgt					660
tgtaatgtac tgcacacaat					720
atgccccagt tgtcccccac					780
atctgctttt tgtcccattt					840
atcacagtgc ccactctgga					900
aggtgtaaat ggtgctttgt					960
aggagagaat gagagcctgc					1020
gggttgatag aaaacatcca					1080
aataaagaaa cagacttttg					1140
acaaaatgtg cggactgaat					1200
atcgcttccc caatgtttgt					1260
tgggaaaaac tcttgctacc					1320
tgtccttaag ttaaaagaat					1380
tactgcaact tgaatcactc					1440
atttattaac acttgtattt					1500
attgttttt accaacaaaa			auducuccau	aaaacag	1539
		addactega			1777 -
<210> 61					
<211> 1937					
<212> DNA					
<213> Homo sapiens					
			-		
<400> 61					
ggcacgagct gtagttgata	atattaaaaa	taagetetge	aactttcttt	ggcattcagt	60
tgttaaaaac aaataggatg					120
aactgaaaac tacctaaatg					180
ttggccaggg tctgttgttg					240

ttggccaggg tctgttgttg actctcgaag agcacatagc ccacttccta gggactggag

gtgccgctac taccatgggt aattcctgta tctgccgaga tgacagtgga acagatgaca

gtgttgacac ccaacagcaa caggccgaga acagtgcagt acccactgct gacacaagga

240

300

```
gccaaccacg ggaccctgtt cggccaccaa ggaggggccg aggacctcat gagccaagga
                                                                        420
gaaagaaaca aaatgtggat gggctagtgt tggacacact ggcagtaata cggactcttg
                                                                        480
tagataatga tcaggaaccc tattcaatga taacattaca cgaaatggca gaaacagatg
                                                                        540
aaggatggtt ggatgttgtc cagtctttaa ttagagttat tccactggaa gatccactgg
                                                                        600
gaccagctgt tataacattg ttactagatg aatgtccatt gcccactaaa gatgcactcc
                                                                        660
agaaattgac tgaaattctc aatttaaatg gagaagtagc ttgccaggac tcaagccatc
                                                                        720
ctgccaaaca caggaacaca tctgcagtcc taggctgctt ggccgagaaa ctagcaggtc
                                                                        780
ctgcaagtat aggtttactt agcccaggaa tactggaata cttgctacag tgtctgaagt
                                                                        840
tacagtccca ccccacagtc atgctttttg cacttatcgc actggaaaag tttgcacaga
                                                                        900
caagtgaaaa taaattgact atttctgaat ccagtattag tgaccggctt gtcacattgg
                                                                        960
agtcctgggc taatgatcct gattatctga aacgtcaagt tggtttctgt gcccagtgga
                                                                       1020
gcttagacaa tctcttttta aaagaaggta gacagctgac ctatgagaaa gtgaacttga
                                                                       1080
gtagcattag ggccatgctg aatagcaatg atgtcagcga gtacctgaag atctcacctc
                                                                       1140
atggettaga ggetegetgt gatgeeteet ettttgaaag tgtgegttge acettttgtg
                                                                       1200
tggatgccgg ggtatggtac tatgaagtaa cagtggtcac ttctggcgtc atgcagattg
                                                                       1260
gctgggtcac tcgagacagc aaattcctca atcatgaagg ctacggaatt ggggatgatg
                                                                       1320
aatactcctg tgcgtatgat ggctgccggc agctgatttg gtacaatgcc agaagtagcc
                                                                       1380
tcacatacac ccatgctgga aagaaggaga tacagtagga tttctgttag acttgaatga
                                                                       1440
aaagcaaatg atcttctttt taaatggcaa ccagctgcct cctgaaaagc aagtcttttc
                                                                       1500
atctactgta tctggatttt ttgctgcagc tagtttcatg tcatatcaac aatgtgagtt
                                                                       1560
caattttgga gcaaaaccat tcaaataccc accatctatg aaatttagca cttttaatga
                                                                       1620
ctacgccttc ctaacagctg aagaaaaaat cattttgcca aggcacaggc gtcttgctct
                                                                       1680
gttgaagcaa gtcagtatcc gagaaaactg ctgttccctt tgttgtgatg aggtagcaga
                                                                       1740
cacacaattg aagccatgtg gacacagtga cctgtgcatg gattgtgcct tgcagctgga
                                                                       1800
gacctgccca ttgtgtcgta aagaaatagt atctagaatc agacagattt ctcatatttc
                                                                       1860
atgacacatg tgaagaggca tcgtggactt ttttctactc aattccagcc aatgttgaaa
                                                                       1920
aaaaaaaaa aaaaaaa
                                                                       1937
```

```
<210> 62
<211> 1452
<212> DNA
<213> Homo sapiens
```

\ <del>4</del> 00> 02						
ccacgcgtcc	gcggacggtg	gacggacgcg	tgggtggacg	cccaccatgc	cgccccgagg	60
gccagcctct	gagctgctgc	tgctgcggct	gctcctgctg	ggggcggcca	ccgctgctcc	120
cttggcaccg	agaccctcca	aggaggagct	gacccgctgt	ctggcagagg	tggtcacaga	180
			accetgeact			240
gtgcgggaca	gagccccacg	gctgtgcgtc	caccgaggag	aaaggcctgc	tgcttgggga	300
tttcaagaag	caggaggctg	ggaagatgag	gtccagccag	gaggtgaggg	atgaggaaga	360
ggagggta	gcagagagga	cccacaagtc	tgaggtccag	gaacaagcca	tccgcatgca	420
agggcatcgc	cagctccacc	aggaggagga	cgaggaggag	gagaaggagg	agaggaagag	480
ggggcccatg	gagacctttg	aggacctgtg	gcagcggcat	ctagagaatg	gaggggacct	540
ccagaagcgg	gtggcagaga	aggccagtga	caaagagacg	gcccagttcc	aggcagagga	60 <u>0</u> .
gaagggggtg	cgggtgctgg	gcggggaccg	cagcctgtgg	cagggggccg	agagaggcgg	660
aggagagagg	cgcgaggact	tgccccacca	ccaccaccac	caccaccagc	cagaggctga	720
gcccaggcag	gagaaggagg	aggcttcgga	gagggaggtg	agtaggggga	tgaaggagga	780
acaccaacac	agtttggagg	cagggttgat	gatggtcagt	ggagtcacaa	ctcacagcca	840
ccggtgttgg	ccctgcacca	ccagatccat	cactagtgga	tcacagtggc	caagactgac	900.
accacgactg	gctaacaact	tccgtgcaag	gcctttacct	tatacttcca	cactactgta	960
tggactacag	caaccaagat	ggcaccattg	cacagaagca	agccaccatc	actagcaagt	1020
tggccactgt	gaaaagtggc	tgctgtgcct	acttcactag	gtgacagaca	gacaccattg <sub>.</sub>	1080
ctgggtcatg	gaaaacaaga	tgtcaccatg	attggtggca	ccaaaagtgc	cgtaacaggg	1140
tgggcatggt'	ggctcacacc	tataatccta	gggagggtta	atcctttcag	aggccaaggt	1200
gggagaatcc	cttgaggcca	ggagtttgag	accagcgtgg	gcaacatagt	gaaaccgtga	1260
			aatggtggcg			1320
			acccgggagt			1380
			cagagcaaaa			1440

C)

```
aaaaaaaaa aa
                                                                        1452
 <210> 63
 <211> 971
 <212> DNA
 <213> Homo sapiens
 <400> 63
 gataaaatct tggtgtgtca gtgggtgaga cagtgccata tcccactcgg tatcatggcc
                                                                          60
 ctagaaacat gagcttttga tgaaggcaat aaaatggagc ttagaaaaaa cactattttg
                                                                         120
 ataatatact atattagcag aatgttgttt ttgagatcca tettatgget etetteatta
                                                                         180
 ttottttgtc attttgtaco tacatoccat toattgggat tocaaaatat aacttotgtg
                                                                         240
 tataatgcca ctctgcaaca aacagtgttc cagcatgatt ctaagacagt tactacatgc
                                                                         300
 tttacgtgaa acatgatcca aaatatcaat caccctcaag tcctttgtat ttagaatatt
                                                                         360
ctgactatat attcatgaaa gcayttcaac ttagagacat cttcattcaa aaggtgagta
                                                                         420
 tccttccata tctgtctggt gtacacaatg atttacgtgc tatgctcgaa caaagataaa
                                                                         480
caaaattcat taagaagctt ccatttcaat agcacakgtt taatttgaat actgagttag
                                                                         540
tacttgttct gtgsctagta ttaaaagcaa agtaataaag gctttgtttc atgatctttg
                                                                         600
gtacatetta ecaetetege cageaaaatt ttaaaatatt aataaatatt tgtaacattt
                                                                         660
tgtttctttt gtcccttttt taaaaaatgt tttcttgtct gccttcccca gattttgcta
                                                                         720
tctgaggcca ttttctcaga aggggttgtg gggaggaaca ggtagtgagt atttagatta
                                                                         780
gacteceete tgtagageag ageceeatga ettetatagg eectagaeae ttttgeettg
                                                                         840
gtgggttcct ttctccatag aaaaagtaaa acctttattt catgtctgca ttggtataaa
                                                                         900-
gattaatacc attattattg ktatcctcat tttttccttc tgattgaaaa aaaaaaaaa
                                                                         960
agggcggccg c
                                                                         971
<210> 64
<211> 1723
<212> DNA
<213> Homo sapiens
<400> 64
cggcacgagg tggaaactgt ttcagcaaag gttcttgtat agagggaata gggaatttca
                                                                         60
aaataaaaaa ttaagtatgt tetgtgtttt cattttaact ttttttatgg tgtttaattt
                                                                         120
gtggttggct gcaactgtgt atcatgtata tggaacttgt aaaaaagttc tcgacattca
                                                                         180
gatettaaga gatgaaatea ettttaeeta taaaaaeeae ttttattgeg gtttgaetge
                                                                         240
attgagetet aggatattaa atgatateae taatattttg catgtaattt geteatttga
                                                                        300
gtgagggcac tttttttgta catatgatgg ggccaatgca caatactttt atcacaatca
                                                                        360
actttttctt tgtatcccta tttcaatgag cagtcagtct çaägaggtta ctgcacttca
                                                                        420
gttctaacta gacatttgta ctaaggtatt tcagttatgt aaactcagcc tgggcacttt
                                                                        480
ctgataactg taaaatgttt tataagatca tgattattga agatacattt tggaaaattt
                                                                        540
taaatgttcg tgagcagctt aactactttt gtatctagcc ttttttaagt atcttgttac
                                                                        600
atttactttt ttaaatgaag aaattacaga agaaatgtca agtaatattg aagaaacaat
                                                                        660
agtttttatt tatgtagttg tacattttta aactaagggc aatacactga catggttatg
                                                                        720
tgcataaaaa ttttgactta aagaactgga agtttatata cacctggact ataagaaacg
                                                                        780
gaagaaaatc agtccacatt ttacagttag cagaatccta aatggcactg gcctggccac
                                                                        840
cttttcattt tacaaatggg gaagtgaatg tgacccctta cttggcatag gaagttaact
                                                                        900
tacacctaat aactgacagg tittigtitg atgacctatt aattatgtag cctaggatta
                                                                        960
atateceaaa attaetetgg titaagtage titatteagt ggeataataa eaetgttite
                                                                       1020
ttccttaagt cttcaatgaa gtgacttaaa acagtcactt tacatattaa aaatgaggag
                                                                       1080
agcaattete tggaatetet cettteagtt eetttgtagg atttetggee ttgaggatag
                                                                       1140
tetteatgtt caaaggeact atgettttat tatataaett eetteagaag aetgaaceae
                                                                       1200
atgatattct cagccctgtt aacactaaaa atatttaaaa ctgaatgata gtagtgactc
                                                                       1260
attgtattac ttaaaactta tataacacgc tgtattagat gtgtgtaaat tagccaaagg
                                                                       1320
ttattttaca aagtgagaca ttggttttta tgtctaaatg ctatttctga ataaatgaaa
                                                                       1380
```

tagtaattag atcaagagct gattagcatc aatgtgtttg aaagatataa aatttataca

tcaccttaac ctctgtatgc acatgatggg attgataaaa tattaaatga gaacaaacta

1440

```
gatatgatta ggacatttga aaccctaatt gtgaatttat ttttaatagt tactgaaatg
                                                                       1560
 aaaatattta aaataatgca caatgtctta agtcttccta aatcaagatt ttggttaaaa
                                                                       1620
 aatacttcta ataatagtaa aagatttttt ttttaagtaa atcataaaac ggttctaaat
                                                                       1680
 gtaaaataaa gacatgtaaa ataaaaaaaa aaaaaaaaa aaa
                                                                       1723
 <210> 65
 <211> 2550
 <212> DNA
 <213> Homo sapiens
 <400> 65
gacgtgagga gcgttccatt tggccagtgg tgggcggttg ccacagctgg tttagggccc
                                                                        60
 cgaccactgg ggccccttgt caggaggaga cagcctcccg gcccggggag gacaagtcgc
                                                                       120
 tgccaccttt ggctgccgac gtgattccct gggacggtcc gtttcctgcc gtcagctgcc
                                                                       180
ggccgagttg ggtctccgtg gttcaggccg gctcccctt cctggtctcc cttctcccgc
                                                                       240
tgggccggtt tatcgggagg agattgtctt ccagggctag caattggact tttgatgatg
                                                                       300
tttgacccag cggcaggaat agcaggcaac gtgatttcaa agctgggctc agcctctgtt
                                                                       360
tcttctctcg tgtaatcgca aaacccattt tggagcagga attccaatca tgtctgtgat
                                                                       420
 ggtggtgaga aagaaggtga cacggaaatg ggagaaactc ccaggcagga acaccttttg
                                                                       480
ctgtgatggc cgcgtcatga tggcccggca aaagggcatt ttctacctga cccttttcct
                                                                       540
catcctgggg acatgtacac tettettege etttgagtge egetacetgg etgtteaget
                                                                       600
gtctcctgcc atccctgtat ttgctgccat gctcttcctt ttctccatgg ctacactgtt
                                                                       660
gaggaccage ttcagtgacc ctggagtgat tcctcgggcg ctaccagatg aagcagcttt
                                                                       720
catagaaatg gagatagaag ctaccaatgg tgcggtgccc cagggccagc gaccaccgcc
                                                                       780
tcgtatcaag aatttccaga taaacaacca gattgtgaaa ctgaaatact gttacacatg
                                                                       840
caagatette eggeeteece gggeeteeca ttgeageate tgtgacaact gtgtggageg
                                                                       900
cttcgaccat cactgcccct gggtggggaa ttgtgttgga aagaggaact accgctactt
                                                                       960
ctacctette atcetttete teteceteet cacaatetat gtettegeet țeaacategt
                                                                      1020
ctatgtggcc ctcaaatctt tgaaaattgg cttcttggag acattgaaag aaactcctgg
                                                                      1080
aactgttcta gaagtcctca tttgcttctt tacactctgg tccgtcgtgg gactgactgg
                                                                      1140
atttcatact ttcctcgtgg ctctcaacca gacaaccaat gaagacatca aaggatcatg
                                                                      1200
gacagggaag aatcgcgtcc agaatcccta cagccatggc aatattgtga agaactgctg
                                                                      1260
tgaagtgetg tgtggeeect tgeeeeceag tgtgetggat egaaggggta ttttgeeact
                                                                      1320
ggaggaaagt ggaagtegae eteccagtae teaagagaee agtageagee tettgeeaea
                                                                      1380
gageecagee eccaeagaae acetgaaete aaatgagatg eeggaggaea geageaetee
                                                                      1440
cgaagagatg ccacctccag agcccccaga gccaccacag gaggcagctg aagctgagaa
                                                                      1500
gtagcctatc tatggaagag acttttgttt gtgtttaatt agggctatga gagatttcag
                                                                      1560
gtgagaagtt aaacctgaga cagagagcaa gtaagctgtc ccttttaact gttttcttt
                                                                      1620
ggtctttagt cacccagttg cacactggca ttttcttgct gcaagctttt ttaaatttct
                                                                      1680
gaactcaagg cagtggcaga agatgtcagt cacctctgat aactggaaaa atgggtctct
                                                                      1740
tgggccctgg cactggttct ccatggcctc agccacaggg tccccttgga cccctctct
                                                                      1800
tecetecaga teceageest estgettggg gteactggte teattetggg getaaaagtt
                                                                      1860
ttcgagactg gctcaaatcc tcccaagctg ctgcacgtgc tgagtccaga ggcagtcaca
                                                                      1920
gagacctctg gccaggggat cctaactggg ttcttggggt cttcaggact gaagaggagg
                                                                      1980
gagagtgggg tcagaagatt ctcctggcca ccaagtgcca gcattgccca caaatccttt
                                                                     2040
taggaatggg acaggtacct tccacttgtt gtatttatta gtgtagcttc tcctttgtct
                                                                     2100
eccatecact etgacaceta agececacte tttteccatt agatatatgt aagtagttgt
                                                                     2160
agtagagata ataattgaca tttctcgtag actacccaga aactttttta atacctgtgc
                                                                     2220
catteteaat aagaatttat gagatgeeag eggeatagee etteacaete tetgteteat
                                                                     2280
ctctcctcct ttctcattag ccccttttaa tttgtttttc cttttgactc ctgctcccat
                                                                     2340
taggagcagg aatggcagta ataaaagtct gcactttggt catttctttt cctcagagga
                                                                     2400
agcctgagtg ctcacttaaa cactatcccc tcagactccc tgtgtgaggc ctgcagaggc
                                                                     2460
2520
cgatgtaccc tcaaaaaaaa aaaaaaaaa
                                                                     2550
```

```
<212> DNA
 <213> Homo sapiens
 <400> 66
 ggcacgagca cattttagtg tacattttta gaatatattt aaaacaataa gatagtctga
                                                                          60
 attggatggt tgagtaacct ttaaactcat ctggtaaacc tctaatgtat agtagaaata
                                                                         120
 atttgaaagc ttttaatgta taatagtact tacttcagga aaataatttg atgtttcatt
                                                                         180
 gttggtctct ttttctatat tatttcagcc taagtctatc ttcataccac aggaaatgca
                                                                         240
 ttctactgag gatgaaaatc aaggaacaat caagagatgt cccatgtcag ggagcccagc
                                                                         300
 aaagccatcc caagttccac ctagaccacc acctcccaga ttacccccac acaaacctgt
                                                                         360
 tgccttaggt aatggtggag ggtgacagca aatatgttac caggttttca tactatgggg
                                                                         420
 agaaaaaaaa ctttcttta agagattatt tgaaattctt ttggtggagg acagaaggaa
                                                                         480
 agcagtggct atggagatgt tttctgcttt ttgcctacta gcttaaagtg tttttatgac
                                                                         540
 aggattccct atgacacagt ctgagatatt ttgtcctcat ttctcatttc atatttagcc
                                                                         600
 ttctctcttc tagagactgg ttccccattc atttagctac ggtgtggaaa caatgcaaat
                                                                         660
 taaactatga acaaacatgg aaaatgtgtt ttgcgtctag gttacttctg ttttagaaga
                                                                         720
 gagtacettg tectaactee ttattteatt taateattte taaaaaaata attggtatta
                                                                         780
 tttgctaggt atttgcctcc aaattaatac tagaaggtgc tattttaaca ctgtaaagac
                                                                         840
 tectetgtgt ttatecagaa gaageaattt taaaaaagag caactagget gggeatggtg
                                                                         900
gctcacacct gtaatcccag cactttggga ggccgaggca ggtggatcac ctgaggtcaa
                                                                         960
gagtttgaga ccagcctgac caacatggtg aaactccgtc tctactaaaa aaaaaaatac
                                                                        1020
aaaattagct gggcgtggta gcgcatgcct gtaatcctac ttgggagact aaggcaggag
                                                                        1080
aatcgcttgc ttgaacctgg gaggcggagt ttgcactgag ccaagatcac gccattgcac
                                                                        1140
tctagcctgg gtgataagag caaaactcct tctcaaaaaa aaaaaaaaa aa
                                                                        1192
<210> 67
<211> 1543
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (76)
<223> n equals a,t,g, or c
<400> 67
cttgactgtg ttttattatt tcatggcttg tatgagtgtg actgggtgtg tttctttagg
                                                                         60
gttctgattg ccagtnattt tcatcaataa gtcttgcaaa gaatgggatt gtcattcttc
                                                                        120
acttcagcac agttctagtc ctgcttctct ggagtagggt tgttgagtaa ggttgcttgg
                                                                        180
gttgtgcatt gcacaagggc acatggctgt gaggtgtatc ctggcggggg gctgtctacc
                                                                        240
tgcagtgagg ggcacctttt ctgttttgct caaaggcatg tataagccaa tgggtgacct
                                                                        300
tatttcctgt gtcttcaggt gtgtggcagg gggcctgggg tggggaggtg gggcgagcga
                                                                        360
gcagtgtgtg gaaagccttg ttgtcacctg aagcacgcca ggtccagatt gaccaatggt
                                                                        420
tttctcactt cagggccmac ccacgccccc tttctgctga ggtttgggtg ccatctagtg
                                                                        480
gtgggatggg acttggttga ctacatttaa ggtaaggtgg acccagcaac tcccagaaac
                                                                        540
aactccgggg acaccactcc ccatcacact ccacaccgag cctggtgccc ggtctgtgcc
                                                                        600
cgageteage gggaeeagga agggatggge eetgeeaggg ttgeeeetge actgtgeatt
                                                                        660
ctcgcctggg aggcacaagt tctttcatct gcttttcctt cagaggtgct gagcccacgc
                                                                        720
catagecect gtgggatggt gggggggggg gegaeeegaa caacagtgea gteggtateg
                                                                        780
agattgggga gaggagcgag tccaaggaga aggtcatgag tttcttttta ctcgtgttga
                                                                        840
ataataacaa taacaataac aatatggaaa ccaccgcaaa cttggagaaa agttgtaagc
                                                                        900
acagtaaaga gaagetteet tetgagteae ttgagtggtt geegttetgg eeetgeacee
                                                                        960
tctgtgcttt gggacggcgt ccaacccgca ttcatgtcag gagtgagtcg cacgtggctt
                                                                       1020
tgtggtcatg gcgacttaat ctgcctggac ggtggctccg tctccctggg cttagacgac
                                                                       1080
cttggcactt ctggagataa gcccatggct cccaggttgt gttcatgtga cgtttccttg
                                                                       1140
tggtaggttc tgggtctgcg ttttgtctag gagtgtcaca ggatggacac tgcctcctgg
                                                                       1200
caggggctgc ccaatgcagt tagcctcctg ctggtgttct ctcttgttgc ttggtgaagg
                                                                       1260
tggccctggt cagcttctcc actgcccagt gaacgacccc tttgtaatga atgagtgggg
                                                                       1320
```

```
aggtagtgtg aagcgatgcc aatatcccat ccctgtcaaa ctgcctttac tttttccttc
                                                                        1380
 cttccttgct cccacctgtg tggatcctgg tcccttcttg tattcagggc tgtggtctgt
                                                                        1440
 tatgacattt actotcaggo tcaggtcotg cttgtttggc ccgtgggago cccttcttct
                                                                        1500
 gccttttgtg ttkttttggt atgtacctac attatttaac tgg
                                                                        1543
 <210> 68
 <211> 1282
 <212> DNA
 <213> Homo sapiens
 <400> 68
 ggcacgaget gggtccggtc aaccgtcaaa atgtccaaag aacctctcat tctctggctg
                                                                          60
 atgattgagt tttggtggct ttacctgaca ccagtcactt cagagactgt tgtgacggag
                                                                         120
 gttttgggtc accgggtgac tttgccctgt ctgtactcat cctggtctca caacagcaac
                                                                         180
 agcatgtgct gggggaaaga ccagtgcccc tactccggtt gcaaggaggc gctcatccgc
                                                                         240
actgatggaa tgagggtgac ctcaagaaag tcagcaaaat atagacttca ggggactatc
                                                                         300
ccgagaggtg atgtctcctt gaccatctta aaccccagtg aaagtgacag cggtgtgtac
                                                                         360
tgctgccgca tagaagtgcc tggctggttc aacgatgtaa agataaacgt gcgcctgaat
                                                                         420
ctacagagag cctcaacaac cacgcacaga acagcaacca ccaccacacg cagaacaaca
                                                                         480
acaacaagee ccaccaccac ccgacaaatg acaacaacee cagetgeaet tecaacaaca
                                                                         540
gtcgtgacca cacccgatct cacaaccgga acaccactcc agatgacaac cattgccgtc
                                                                         600
ttcacaacag caaacacgtg cctttcacta accccaagca cccttccgga ggaagccaca
                                                                         660
ggtcttctga ctcccgagcc ttctaaggaa gggcccatcc tcactgcaga atcagaaact
                                                                         720
gtcctcccca gtgattcctg gagtagtgct gagtctactt ctgctgacac tgtcctgctg
                                                                         780
acatccaaag agtccaaagt ttgggatctc ccatcaacat cccacgtgtc aatgtggaaa
                                                                         840
acgagtgatt ctgtgtcttc tcctcagcct ggagcatctg atacagcagt tcctgagcag
                                                                         900
aacaaaacaa caaaaacagg acagatggat ggaataccca tgtcaatgaa gaatgaaatg
                                                                         960
cccatctccc aactactgat gatcatcgcc ccctccttgg gatttgtgct cttcgcattg
                                                                        1020
tttgtggcgt ttctcctgag agggaaactc atggaaacct attgttcgca gaaacacaca
                                                                       1080
aggctagact acattggaga tagtaaaaat gtcctcaatg acgtgcagca tggaagggaa
                                                                       1140
gacgaagacg gcctttttac cctctaacaa cgcagtagca tgttagattg aggatggggg
                                                                       1200
catgacactc cagtgtcaaa ataagtctta gtagatttcc ttgtttcata aaaaagactc
                                                                       1260
acttaaaaaa aaaaaaaaaa aa
                                                                       1282
<210> 69
<211> 1440
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (323)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> -(337)
<223> n equals a,t,g, or c
<400> 69
gcttccacac agtatgacag acctctagac tagaagtaca tgatgaaaat agttggtaat
                                                                         60
taagataaaa ttgatttaat ttactttagt cctgaacatt gaatacttgt caggatgcca
                                                                        120
ttgcaataat ggcatatatc ggagccaaat ggtcaaatga tacacagagc caggagccta
                                                                        180
gcagccttgt ccagtttgat gctctatacc aagcttgtcc aaccagtggc ctgcatatca
                                                                        240
catgtggccc aggacggctt tgaatatggc ccaacacaaa ttcataaact ttcttaaaac
                                                                        300
aatatgaget tatgaaattt tynteatgat atttttnett ttttetttttt
                                                                        360
```

taactcatya gctatcatta gtgttaatgt attttatgtg tggcccaaga cagttcttcc

	225656666			39			400
						t tacactgtcc	480
						a gtagatgata	540
						a atccaactat	600
						a catcatcaag g gattctattt	660 720
						a aatctgttag	
						a acagtttcta	780 840
						ctaaccttca	900
						ttgcacctta	960
						gtggagtata	1020
						ccgtgattga	1020
						ttctttctcg	1140
						aaaatcagga	1200
						atgattaagt	1260
						tttgctattt	1320.
						cataataata	1380
						aaaactcgta	1440
		J					1110
	<210> 70						
	<211> 1068						
	<212> DNA			•	•		
	<213> Homo	sapiens					
	<400> 70						
-		gccaccgcac					60
		ccaaggacgg					120
		gtggaagaca					180
		gctgatgaag					240
		cctgttccat					300
		gtactgcgtg					360
		cgcagccatc					420
		ctcgagcgtg					480
		cgccatgacc					540
		tgaactactg					600
		cctgtgcctc					660
		ctgtgctcag ccacatgatg					720
							780 840
		ctctgagcct cctgcaagca					900
		caatggaccc					960
		tgcactgaaa					1020
		aaaaaaaaaa				acagagacge	1068
							1000
	-						
	<210> 71	•					
	<211> 1948		-				
	<212> DNA						
	<213> .Homo	sapiens.					
		*	•				
	<400> 71						
		gctgcagaga					60
		gagggcctgc					120
		ctgaagcctc					180
	gccgccccgc	cgcccgtggg	acagagaggc	tggcacgttg	caggtcctgg	gagcgctggc	240
	tgtgctgtgg	ctgggctccg	tggctcttat	ctgcctcctg	tggcaagtgc	cccgtcctcc	300
		caggtgcagc					360
	cagettggga	gcccctggaa (	gcagagggcc	addcadcada	aggactccta	ccaacttata	420

cagcttggga gcccctggaa gcagagggcc aggcagcaga gggactcctg ccagcttgtc

cttgtggaaa gcatccccca ggacctgcca tctgcagccg gcagcccctc tgcccagcct

420

```
ctgggccagg cctggctgca gctgctggac actgcccagg agagcgtcca cgtggcttca
                                                                         540
tactactggt ccctcacagg gcctgacatc ggggtcaacg actcgtcttc ccagctggga
                                                                         600
gaggetette tgeagaaget geageagetg etgggeagga acattteeet ggetgtggee
                                                                        660
accagcagec egacaetgge caggacatee acegaeetge aggttetgge tgeeegaggt
                                                                        720
gcccatgtac gacaggtgcc catggggcgg ctcaccatgg gtgttttgca ctccaaattc
                                                                        780
tgggttgtgg atggacggca catatacatg ggcagtgcca acatggactg gcggtctctg
                                                                        840
acgcaggtga aggagettgg cgctgtcate tataactgca gecacetggg ccaagacetg
                                                                        900
gagaagacct tccagaccta ctgggtactg ggggtgccca aggctgtcct ccccaaaacc
                                                                        960
tggcctcaga acttctcatc tcacttcaac cgtttccagc ccttccacgg cctctttgat
                                                                       1020
ggggtgccca ccactgccta cttctcagcg tcgccaccag cactctgtcc ccagggccgc
                                                                       1080
accegggace tggaggeget getggeggtg atggggageg eccaggagtt catetatgee
                                                                       1140
tccgtgatgg agtatttccc caccacgcgc ttcagccacc ccccgaggta ctggccggtg
                                                                       1200
ctggacaacg cgctgcgggc ggcagccttc ggcaagggcg tgcgcgtgcg cctgctggtc
                                                                       1260
ggctgcggac tcaacacgga ccccaccatg ttcccctacc tgcggtccct gcaggcgctc
                                                                       1320
agcaaccccg cggccaacgt ctctgtggac gtgaaagtct tcatcgtgcc ggtggggaac
                                                                       1380
cattccaaca tcccattcag cagggtgaac cacagcaagt tcatggtcac ggagaaggca
                                                                       1440
gcctacatag gcacctccaa ctggtcggag gattacttca gcagcacggc gggggtgggc
                                                                       1500
ttggtggtca cccagagccc tggcgcgcag cccgcggggg ccacggtgca ggagcagctg
                                                                       1560
eggeagetet ttgageggga etggagtteg egetaegeeg teggeetgga eggaeagget
                                                                       1620
ccgggccagg actgcgtttg gcagggctga ggggggcctc tttttctctc ggcgaccccg
                                                                       1680
ccccgcacgc gecetecect etgaccecgg cetgggette agecgettee teccgcaage
                                                                       1740
agcccgggtc cgcactgcgc caggagccgc ctgcgaccgc ccgggcgtcg caaaccgccc
                                                                       1800 -
gcctgctctc tgatttccga gtccagcccc ccctgagccc cacctcctcc agggagccct
                                                                       1860
ccaggaagcc ccttccctga ctcctggccc acaggccagg cctaaaaaaa actcgtggct
                                                                       1920
tcaaaaaaa aaaaaaaaa aaaaaaaa
                                                                       1948
```

```
<210> 72 +
<211> 1837
<212> DNA
<213> Homo sapiens
```

<400> 72

```
ccgggtcgac ccacgcgtcc gcccacgcgt ccgcagaatc aagagtaaaa gcaacccaga
                                                                         60
caactettta atagtetgat getaetgtge atattaatat ttaaagteea ettgttatta
                                                                        120
ttttgcagat ccttttctgc attccttaat ctgaaagaga gatttttatt cttaatactt
                                                                        180
gtatggattt ttgtggcttt ttatgggtgt aaatattete etetetegtt tgacagttte
                                                                        240
aaaagcctag gttcataagc tctccatgaa taaatatgtt cttagtcatg tgatgtaaaa
                                                                        300
agatogotta caaagottgt gaaacotgag cottootttt gaacotttta ctacccatga
                                                                        360
gctcaggaac catacatgca aaattttatt cttgcgtcat gacttcagct tatgagggaa
                                                                        420
atgagetatg aatttaaatg actettetae tetataceaa gtttetatga aaataaaatt
                                                                        480
gtattttttc ctttttccta aaaggaaagt ttcatctgac tagtgtttct gccggtattt
                                                                        540
gttcccattg ttaaaagatt tgtttcttaa gattagcatt aaaatagaca tcctgttttt
                                                                        600
gaaggcatct ttttttgttt atactgtaat cccaaaaatg tccaactggc tgaatggcca
                                                                        660
agaaactccc ttgtaatttc ctaatagagc taaagttaac aagtcacctt aaagtctact
                                                                        720
aattccaatt aagttcacct tggagaaatt ttcattagtc tagtcctttg gcacttaccc
                                                                        780
aatacaccct taattaaagt tettatgeat gggaccagtt gtatetatta taaagattat
                                                                        840
cataattcta agttttctct cccacccca tttttttttc agggtgtgtt tccatataaa
                                                                        900
gatcgaaaaa gtccattttc ttttcatgta tcttcaagat ggaagatctt ttccttccct
                                                                        960
tectteetee ettetteeet eceteaetee etcetteeet eceteaetee etgeeteeet
                                                                       1020
ecetteette etttettett eetteettee titteagitt tataetaete agaagittga
                                                                       1080
ggaggagaga gaatacatta aaatgtattc agccccagtt caggcactat atagtgctag
                                                                       1140 -
ctatgtgtta cttatttgga ttctcatgtg aacctggtga gatggactgg atcccacttt
                                                                       1200
acaaacgagg aacgagaagc ttagataagt taaacctttt ccaaattttc acatctttaa
                                                                       1260
atgatagagt caagttttga actaagatct gacttcagag ttcttgctca ctagattgcc
                                                                       1320
tttcaggtag tatttggagg cctctgcacc tctcctacca ggatacttcc cccatcgcat
                                                                       1380
tgtgtagctt ttctccattt catttctata gcactttgac atctagcaaa tgttattttc
                                                                       1440
tcatcttcct cctcttccta cctcttgctg cttgtataaa tatcttgttc aggctgaact
                                                                       1500
gagagaagta gtgtattcag aaaacttact atctcttttc ggctgggtgt ggtccctcac
```

```
41
 acctgtaatc ccagcacttt gggaggccta ggtgggcgga tcacttgagg tcaggagttc
                                                                        1620
 ggggccagcc tggccaacgg gatgaaactt tgtctctact aaaagtgcaa aaattaggtg
                                                                        1680
 gatgtggtgg ctgcacctgt tgtcccagct actcaggaag ctgaggtggg gagactcact
                                                                        1740
 tgaacctggg aggcggaggt tgcagtgggc cgggattgcg ccactgtact ccagcctggg
                                                                        1800
 tgagggagca agactctgtc tcaaaaaaa aaaaaaa
                                                                        1837
 <210> 73
 <211> 1161
 <212> DNA
 <213> Homo sapiens
 <400> 73
ggggaaacgg agctctgggt gtgatatttc ctctgcattt tcctgtcggg gtggtgaaat
                                                                          60
aactggtttg aacccagtcc actggactcg aaagctcatg ctcagaagcc ccagggctcc
                                                                         120
ctctaacttt cttggttgct gcaactcaga gagcgctgga atggacccag ggcatgctcc
                                                                         180
 tcatctcagc ggttcaggtt ttcattcttc tatctccatc cttctattta attctgtact
                                                                         240
 tactaagacc tgggggtaca gggaggggct tggagcctat ttgcccagct gctgaatggg
                                                                         300
gaggttggag agatggatac ttatggctcc agtaccagga gccaactgtt tcccttgaca
                                                                         360
actggggaaa ctgaggccca cagagccaag gccacttgcc cgtggttacc taaagatgtt
                                                                         420
aacgagaaat ccgggtctgg aactcagatc cctttgtatc ctgtttcggt gttggtgtag
                                                                         480.
tttgttgctt tccctaagat gagcccagat agggaaactg aagtgcctgg gstcctggtt
                                                                         540
gggtcttctg cggggagaga atggcgattc aactcccgtg tactgttgaa cttgacacaa
                                                                         600
acacgctcac atcccaggct gcatacgtgt tttgctttag aaatgacatg aagccttttg
                                                                         660
actattttta agagaaaggc aatggctgtg atatttcccc tgcacctccc tctcggggcc
                                                                        720
acttggttaa atgtcaggaa agggagagta tttcctggtc aggaacattc agagcttgct
                                                                        780
gggagctgaa gttttgtttt ccattaagta ggtattcggg gagtctattt ccctctgcct
                                                                        840
cctctgtttc cctggaarct tgcgcttgac agttgcaggg aggaggggtt tgagaatgag
                                                                        900
cagccgagat gcccacgtat cgcgtgcccg ctctaggagt ggcggggtgg ctatttttag
                                                                        960
ccatcctgat tcagtagagg catttcagcg tttgttcaat atttaattat ccatctgaaa
                                                                       1020
ttggcccatg tggccttcag tttggaagca gctctctgtg ctgtgatttc ccagttgcat
                                                                       1080
aaataaggaa gtcaagggaa tctcaatagc cctccaaata ataataacga aaaaaaaaa
                                                                       1140
aaaaaactc gacggcacgt a
                                                                       1161
<210> 74
<211> 1450
<212> DNA
<213> Homo sapiens
<400> 74
gggcacgagt caagattgtg aggtccaaga gaacagatca gggtcttaag aagattatct
                                                                         60
ttcatagtgc ctatttgatg gtaatgatca taaatacagt ataatagaag gaaaaatatc
                                                                        120
tggtggctta tatgcattgg tagtttctca tggtaataag cattttttt tctcttcctt
                                                                        180
ttagcacaag tgcatacacc ttgatagcac caaatataaa ccggagaaat gagatacaaa
                                                                        240
gaattgcgga caggagctgg ccaacctgga gaagtggaag gagcagaaca gagctaaacc
                                                                        300
ggttcacctg gtgcccagac ggctaggtgg aagccagtca gaaactgaag tcagacagaa
                                                                        360
acaacaactc cagctgatgc aatctaaata caagcaaaag ctaaaaagag aagaatctgt
                                                                        420
aagaatcaag aaggaagctg aagaagctga actccaaaaa atgaaggcaa ttcagagaga
                                                                        480
gaagagcaat aaactggagg agaaaaaaag acttcaagaa aaccttagaa gagaagcatt
                                                                        540
tagagagcat cagcaataca aaaccgctga gttcttgagc aaactgaaca cagaatcgcc
                                                                        600
agacagaagt gcctgtcaaa gtgctgtttg tggcccacaa tcctcaacat gggccagaag
                                                                        660
ctgggcttac agagattctc taaaggcaga agaaaacaga aaattgcaaa agatgaagga
                                                                        720
tgaacaacat caaaagagtg aattactgga actgaaacgg cagcagcaag agcaagaaag
                                                                        780
agccaaaatc caccagactg aacacaggag ggtaaataat gcttttctgg accgactcca
                                                                        840
aggcaaaagt caaccaggtg gcctcgagca atctggaggc tgttggaata tgaatagcgg
                                                                        900
taacagctgg ggtatatgag aaaatattga ctcctatctg gccttcatca actgacctcg
                                                                        960
aaaagcctca tgagatgctt tttcttaatg tgattttgtt cagcctcact gtttttacct
                                                                       1020
```

taatttcaac tgcccacaca cttgaccgtg cagtcaggag tgactggctt ctccttgtcc

```
42
 tcatttatgc atgtttggag gagctgattc ctgaactcat atttaaactc tactgccagg
                                                                        1140
 gaaatgctac attatttttc taattggaag tataattaga gtgatgttgg tagggtagaa
                                                                        1200
 aaagagggag tcacttgatg ctttcaggtt aatcagagct atgggtgcta caggcttgtc
                                                                        1260
 tttctaagtg acatattett atetaattet eagateaggt tttgaaaget ttgggggtet
                                                                        1320
 ttttagattt taatccctac tttctttatg gtacaaatat gtacaaaaga aaaaggtctt
                                                                        1380
 atattetttt acacaaattt ataaataaat tttgaaetee ttetgtataa aaaaaaaaa
                                                                        1440
 aaaaaaaaa
                                                                        1450
 <210> 75
 <211> 557
 <212> DNA
 <213> Homo sapiens
 <220>
<221> SITE
<222> (136)
<223> n equals a,t,g, or c
<400> 75
getttttteg ggggaatgtt tacagagget gtgggteaga atgaageaac accagaaget
                                                                          60
atggagactg gggtttctgc tgtgtttcaa cttggttttt tgtgttctcg ggagaagaca
                                                                         120
cccttggccg tgggcngtga gacctttgat gtgtgtttac gctgaccgcg agttgttggg
                                                                         180
atggcttctg cggtgggtgg ttctcttggt attctcggtt ttgaagctta tttttagact
                                                                         240
ctgaactctc cttcttggca ggagttgaat ccccctgggg gttttcaagt tgttcttgga
                                                                         300
ctgctggttt ttgaaataga agcccctttg gtggggtccc ccataaaccc aggcgctggt
                                                                         360
gcccaccttg tgatgtgaag gctcctgtaa cacgacctca ctttcctggc cccgcactac
                                                                         420
tcacctgccc cacgggacac aggtacatgg cttctgggtg tctgtccccg ctgtacccag
                                                                         480
atctgccccc ttgcccttgt ccccagatcc tccactcgct cctaggaacc gtacccctcc
                                                                         540
caaaacaaaa aaaaaaa
                                                                         557
<210> .76
<211> 2483
<212> DNA
<213> Homo sapiens
<400> 76
cggcacgagc tcgtgccgct cgtgccggga ctggttaata gtgaagtcca taatgaagat
                                                                         60
ggaagaaatg gagatgtctc tcagtttcca tatgtggaat ttacaggaag agatagtgtc
                                                                        120
acctgcccta cttgtcaggg aacaggaaga attcctaggg ggcaagaaaa ccaactggtg
                                                                        180
gcattgattc catatagtga tcagagatta aggccaagaa gaacaaagct gtatgtgatg
                                                                        240
gettetgtgt ttgtetgtet acteetttet ggattggetg tgttttteet ttteettege
                                                                        300
tctatcgacg tgaaatacat tggtgtaaaa tcagcctatg tcagttatga tgttcagaag
                                                                        360
cgtacaattt atttaaatat cacaaacaca ctaaatataa caaacaataa ctattactct
                                                                        420
gtcgaagttg aaaacatcac tgcccaagtt caattttcaa aaacagttat tggaaaggca
                                                                        480
cgcttaaaca acataagcat tattggtcca cttgatatga aacaaattga ttacacagta
                                                                        540
cctaccgtta tagcagagga aatgagttat atgtatgatt tctgtactct gatatccatc
                                                                        600
aaagtgcata acatagtact catgatgcaa gttactgtga caacaacata ctttggccac
                                                                        660
tctgaacaga tatcccagga gaggtatcag tatgtcgact gtggaagaaa cacaacttat
                                                                        720
cagttggggc agtctgaata tttaaatgta cttcagccac aacagtaaaa actggaagag
                                                                        780
atggatttaa agaagaaata totattgata tttcctatac tctcaatgaa gaggtatttc
                                                                        840
ctaataggag accttaaatt gaacaaacct aaagtttaca cttctaagag tacagttaaa
                                                                       900
agtatgtgga cctgcagttc ttgtaactct ccactctgtg ttaatgatat atttgtacta
                                                                        960
ggatetttta ettgaateta aatttaetgg ttgattteet teteeageet ateceetaea
                                                                       1020
gggaaaagct gatacttccc ctatagtaca ataaataatt atttaaaagt catagctcca
                                                                       1080
gtcactactg aaaacataat tttggtgata aacataattt gagaaactta atttctgaat
                                                                       1140
gtttttatag aaaattactg aaaatctatt actcatggaa gacttttaaa gagtaacctt
                                                                       1200
ttttcctgtt ttataaattc ccattgttat atggtagtat ttcagctaca caatatttta
                                                                       1260
```

```
gcttttagct agacatttat aggttttcat ttgttgaaat ggtaatcatc tgcatgtttt
                                                                      1320
 tgtcacttat ttcaggttag tgattgccta acacttataa gccaaaataa tctttgcaaa
                                                                      1380
 attccatacc taaaattttg aaagccccta atgttttcac acatctttct gtattagtta
                                                                      1440
 tagttttgtg aaatctttgt gtgatcttca aacattatca tttaatgtac aatactgtaa
                                                                      1500
 ataaactgtg catggctttt atacagcttt agtaaatgtc aaataaagtg gtacagactc
                                                                      1560
 attacaacaa gtttctcata aaaatacaat aaataggaaa atgaaattca gaaacccata
                                                                      1620
 gactgggaat aggttccagt tacagcttgg atctggcata aaataaattt gaaataaaat
                                                                      1680
 attttgatgc tccatttttt tatgttgctt ttcatactaa agaatggtgt agacttgttt
                                                                      1740
 gcaactgtag gtacccagtt atcaatttta tcaatgttta gagagaaatt atttttttgg
                                                                      1800
 tagaaatgtc aagaaatcct taattgaatg tcattaaatg atggtggcca aaataaaacc
                                                                      1860
 tatttagaaa tttaatcact ttgcacatca cttggaatat gatgcctcta gtagttactt
                                                                      1920
 ttttatagtt ttctactttt ggttttattt aaaattgttt tcaaatatag attattgact
                                                                      1980
 tattcaactt tgctgtttta tattttcagt atcatttttc atttgttttt tttttttgt
                                                                      2040
cttttcactt accaagttct agggacattt aaaatatgta ctaagtgtag gagtggttat
                                                                      2100
gataccaaaa aatgtagctg ggttgagatt aatttcgttc tgttttctca tgacagaaat
                                                                      2160
caggittccc tttccccacc cctaagigcc taacitaggi cigaaacagc cigittatta
                                                                      2220
gtctgactct ctcaaccata aaacataagc tttatttaat tctgccttta aacacactca
                                                                      2280
ggtttcccct taattttcat attattttct gcaggttttc ttgagtatct tcaattcgtt
                                                                      2340
gaatgtggtt tttggttttt ttttgtttta acactagtct tcccttaatt cattgctaac
                                                                      2400
tcaagccatc cttactatta aacccaaatc agtcctttaa gttcattatg gcctttctag
                                                                      2460
tatttaaaaa aaaaaaaaa áaa
                                                                      2483
<210> 77
<211> 667
<212> DNA
<213> Homo sapiens
<400> 77
ggcacgagca ctgcagctcc ctgagcactc tctacagaga cgcggacccc agacatgagg
                                                                        60
aggeteetee tggteaceag cetggtggtt gtgetgetgt gggaggeagg tgeagteeca
                                                                       120
gcacccaagg tccctatcaa gatgcaagtc aaacactggc cctcagagca ggacccagag
                                                                       180
aaggcctggg gcgcccgtgt ggtggagcct ccggagaagg acgaccagct ggtggtgctg
                                                                       240
ttccctgtcc agaagccgaa actcttgacc accgaggaga agccacgagg caccaaggcc
                                                                       300
tggatggaga ccgaggacac cctgggccgt gtcctgagtc ccgagcccga ccatgacagc
                                                                      360
ctgtaccacc ctccgcctga agaggaccag ggcgaggaga ggccccggtt gtaggtgatg
                                                                      420
ccaaatcacc aggtgeteet gggaceggag gaagaceaag acacatetac caececeagt
                                                                      480
aggggctcca ggggccatca atgcccccgc cctgtcccaa ggcccaggct gttgggactg
                                                                      540
ggaccetece taccetgece cagetagaca aataaacece ageaggeegg aaaaaaaaaa
                                                                      600
660
aaaaaaa
                                                                      667
<210> 78
<211> 1931
<212> DNA
<213> Homo sapiens
<220> .
<221> SITE
<222> (1212)
<223> n equals a,t,g, or c
<400> 78
cccgcagcag ctcccaggat gaactggttg cagtggctgc tgctgctgcg ggggcgctga
                                                                        60
gaggacacga gctctatgcc tttccggctg ctcatcccgc tcggcctcct gtgcgcgctg
                                                                       120
ctgcctcagc accatggtgc gccaggtccc gacggctccg cgccagatcc cgcccactac
                                                                       180
agggagcgag tcaaggccat gttctaccac gcctacgaca gctacctgga gaatgccttt
                                                                       240
cccttcgatg agctgcgacc tctcacctgt gacgggcacg acacctgggg cagttttct
```

360

ctgactctaa ttgatgcact ggacaccttg ctgattttgg ggaatgtctc agaattccaa

```
agagtggttg aagtgctcca ggacagcgtg gactttgata ttgatgtgaa cgcctctgtg
                                                                         420
  tttgaaacaa acattcgagt ggtaggagga ctcctgtctg ctcatctgct ctccaagaag
                                                                         480
  gctggggtgg aagtagaggc tggatggccc tgttccgggc ctctcctgag aatggctgag
                                                                         540
  gaggeggeee gaaaacteet eecageettt cagaceeeca etggeatgee atatggaaca
                                                                        600
  gtgaacttac ttcatggcgt gaacccagga gagacccctg tcacctgtac ggcagggatt
                                                                        660
  gggaccttca ttgttgaatt tgccaccctg agcagcctca ctggtgaccc ggtgttcgaa
                                                                        720
  gatgtggcca gagtggcttt gatgcgcctc tgggagagcc ggtcagatat cgggctggtc
                                                                        780
  ggcaaccaca ttgatgtgct cactggcaag gggtggccca ggacgcaggc atcggggctg
                                                                        840
  gcgtggactc ctactttgag tacttggtga aaggagccat cctgcttyag gataagaagc
                                                                        900
  tcatggccat gttcctagag tataacaaag ccatccggaa ctacacccgc ttcgatgact
                                                                        960
  ggtacctgtg ggttcagatg tacaagggga ctgtgtccat gccagtcttc cagtccttgg
                                                                       1020
  aggeetactg geetggtett cagageetea ttggagaeat tgacaatgee atgaggaeet
                                                                       1080
  tecteaacta etacaetgta tggaageagt ttgggggget eeeggaatte tacaacatte
                                                                       1140
 ctcagggata cacagtggag aagcgagagg gctacccact tcggccagaa cttattgaaa
                                                                       1200
 gegeaatgta entetacegt gecaeggggg atcccaecet ectagaacte ggaagagatg
                                                                       1260
 ctgtggaatc cattgaaaaa atcagcaagg tggagtgcgg atttgcaaca atcaaagatc
                                                                       1320
 tgcgagacca caagctggac aaccgcatgg agtcgttctt cctggccgag actgtgaaat
                                                                       1380
 acctctacct cctgtttgac ccaaccaact tcatccacaa caatgggtcc accttcgacg
                                                                       1440
 cggtgatcac cccctatggg gagtgcatcc tgggggctgg ggggtacatc ttcaacacag
                                                                       1500
 aagctcaccc catcgaccct gccgccctgc actgctgcca gaggctgaag gaagagcagt
                                                                       1560
 gggaggtgga ggacttgatg agggaattct actctctcaa acggagcagg tcgaaatttc
                                                                       1620
 agaaaaacac tgttagttcg gggccatggg aacctccagc aaggccagga acactcttct
                                                                       1680
 caccagaaaa ccatgaccag gcaagggaga ggaagcctgc caaacagaag gtcccacttc
                                                                       1740
 teagetgeec cagteageec tteaceteea agttggeatt actgggacag gtttteetag
                                                                       1800
 actcctcata accactggat aattttttta ttttatttt tttgaggcta aactataata
                                                                       1860
 1920
 agggcggccg c
                                                                       1931
<210> 79
<211> 1145
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (9)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (410)
<223> n equals a,t,g, or c
<400> 79
caggcagang ggctgagtca caggcacagg tgaggaactc aactcaaact cctctctctg
                                                                        60
ggaaaacgcg gtgcttgctc ctcccggagt ggccttggca gggtgttgga gccctcggtc
                                                                       120
tgccccgtcc ggtctctggg gccaaggctg ggtttccctc atgtatggca agagctctac
                                                                       180
tcgtgcggtg cttcttctcc ttggcataca gctcacagct ctttggccta tagcagctgt
                                                                       240
ggaaatttat acctcccggg tgctggaggc tgttaatggg acagatgctc ggttaaaatg
                                                                       300
cactttctcc agctttgccc ctgtgggtga tgctctaaca gtgacctgga attttcgtcc
                                                                       360
tctagacggg ggacctgagc agtttgtatt ctactaccac atagatcccn ttccaaccca
                                                                       420
tgagtgggcg gtttaaggac cgggtgtctt gggatgggaa tcctgagcgg tacgatgcct
                                                                       480
ccatccttct ctggaaactg cagttcgacg acaatgggac atacacctgc caggtgaaga
                                                                       540
acccacctga tgttgatggg gtgatagggg asatccggct cagcgtcgtg cacactgtac
                                                                       600
gettetetga gatecaette etggetetgg ceattggete tgeetgtgea etgatgatea
                                                                       660
taatagtaat tgtagtggtc ctcttccagc attaccggaa aaagcgatgg gccgaaagag
                                                                       720
ctcataaagt ggtggagata aaatcaaaag aagaggaaag gctcaaccaa gagaaaaagg
                                                                       780
```

```
45
 tctctgttta tttagaagac acagactaac aattttagat ggtaaggttc acaaataggt
                                                                        840
 tgatttcttt cttcagcttt ctgacatgtc cagcccatct ctaatgagga ctcccagatc
                                                                        900
 atcactttat ggctgttarg tgtttcccat atgaaattag aggagctggg tcagggagac
                                                                        960
 aaaagtette tattagtett atggataget eeteettgag tgtattttgt geaaaagatt
                                                                      1020
 aagaagctgg actctactgc cattaaagct gagagaatcc taaggttatt tgtggcttcg
                                                                      1080
 gggttatatt tattactact actactaata aatattcaac aagtaaataa atctttttta
                                                                      1140
 aatca
                                                                      1145
<210> 80
<211> 1955
<212> DNA
<213> Homo sapiens
<400> 80
ggcacgagtg ccatccctgt atttgctgcc atgctcttcc ttttctccat ggctacactg
                                                                        60
ttgaggacca gcttcagtga ccctggagtg attcctcggg cgctaccaga tgaagcagct
                                                                       120
180
cctcgtatca agaatttcca gataaacaac cagattgtga aactgaaata ctgttacaca
                                                                       240
tgcaagatct tccggcctcc ccgggcctcc cattgcagca tctgtgacaa ctgtgtggag
                                                                       300
cgcttcgacc atcactgccc ctgggtgggg aattgtgttg gaaagaggaa ctaccgctac
                                                                       360
ttctacctct tcatcctttc tctctccctc ctcacaatct atgtcttcgc cttcaacatc
                                                                       420
gtctatgtgg ccctcaaatc tttgaaaatt ggcttcttgg agacattgaa aggaaactcc
                                                                       480
tggaactgtt ctagaagtcc tcatttgctt ctttacactc tggtccgtcg tgggactgac
                                                                       540
tggatttcat actttcctcg tggctctcaa ccagacaacc aatgaaagac atcaaaggat
                                                                       600
catggacagg gaagaatcgc gtccagaatc cctacagcca tggcaatatt gtgaagaact
                                                                       660
gctgtgaagt gctgtgtggc cccttgcccc ccagtgtgct ggatcgaagg ggtattttgc
                                                                       720
cactggagga aagtggaagt cgacctccca gtactcaaga gaccagtagc agcctcttgc
                                                                       780
cacagagece ageceecaca gaacacetga aeteaaatga gatgeeggag gacageagca
                                                                       840
ctcccgaaga gatgccacct ccagagcccc cagagccacc acaggaggca gctgaagctg
                                                                       900
agaagtagcc tatctatgga agagactttt gtttgtgttt aattagggct atgagagatt
                                                                       960
tcaggtgaga agttaaacct gagacagaga gcaagtaagc tgtccctttt aactgttttt
                                                                      1020
ctttggtctt tagtcaccca gttgcacact ggcattttct tgctgcaagc ttttttaaat
                                                                      1080
ttctgaactc aaggcagtgg cagaagatgt cagtcacctc tgataactgg aaaaatgggt
                                                                      1140
ctcttgggcc ctggcactgg ttctccatgg cctcagccac agggtcccct tggacccct
                                                                      1200
ctcttccctc cagatcccag ccctcctgct tggggtcact ggtctcattc tggggctaaa
                                                                      1260
agttttcgag actggctcaa atcctcccaa gctgctgcac gtgctgagtc cagaggcagt
                                                                      1320
cacagagacc tetggecagg ggatectaae tgggttettg gggtetteag gaetgaagag
                                                                      1380
gagggagagt ggggtcagaa gatteteetg gccaccaagt gccagcattg cccacaaate
                                                                      1440
cttttaggaa tgggacaggt accttccact agttgtattt attagtgtag cttctccttt
                                                                     1500
gtctcccatc cactctgaca ccttaagccc cactcttttc ccattagata tatgtaagta
                                                                     1560
gttgtagtag agataataat tgacatttct cgtagactac ccagaaactt ttttaatacc
                                                                     1620
tgtgccattc tcaataagaa tttatgagat gccagcggca tagcccttca cactctctgt
                                                                     1680
ctcatctctc ctcctttctc attagcccct tttaatttgt ttttcctttt gactcctgct
                                                                     1740
cccattagga gcaggaatgg cagtaataaa agtctgcact ttggtcattt cttttcctca
                                                                     1800
gaggaageet gagtgeteae ttaaacaeta teeeeteaga eteeetgtgt gaggeetgea
                                                                     1860
gaggeeetga atgeacaaat gggaaaeeaa ggeacagaga ggeteteete teeteteete
                                                                     1920
tccccgatg taccctcaaa aaaaaaaaaa aaaaa
                                                                     1955
```

```
<210> 81
```

<sup>&</sup>lt;211> 54

<sup>&</sup>lt;212> PRT

<sup>&</sup>lt;213> Homo sapiens

<sup>&</sup>lt;220>

<sup>&</sup>lt;221> SITE

<sup>&</sup>lt;222> (54)

<sup>&</sup>lt;223> Xaa equals stop translation

<400> 81

Met Ala Gly Gln His Leu Ala Cys Leu Ala Ser Cys Val Met Ser Leu 1 5 10 15

Ile Trp Phe Phe Phe Phe Cys Ser Cys Phe Ile Cys Ser Ala Pro Ala 20 25 30

Pro Pro Gln Gln Leu Val Ala Tyr Gly Phe Phe Lys Arg Lys Val Asp 35 40 45

Phe Met Leu Tyr Ile Xaa 50

<210> 82

<211> 578

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (326)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (342)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (444)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 82

Met Pro Phe Arg Leu Leu Ile Pro Leu Gly Leu Leu Cys Ala Leu Leu 1 5 10 15

Pro Gln His His Gly Ala Pro Gly Pro Asp Gly Ser Ala Pro Asp Pro 20 25 30

Ala His Tyr Arg Glu Arg Val Lys Ala Met Phe Tyr His Ala Tyr Asp
35 40 45

Ser Tyr Leu Glu Asn Ala Phe Pro Phe Asp Glu Leu Arg Pro Leu Thr 50 60

Cys Asp Gly His Asp Thr Trp Gly Ser Phe Ser Leu Thr Leu Ile Asp 65 70 75 80

Ala Leu Asp Thr Leu Leu Ile Leu Gly Asn Val Ser Glu Phe Gln Arg 85 90 95

Val Val Glu Val Leu Gln Asp Ser Val Asp Phe Asp Ile Asp Val Asn 100 105 110

Ala Ser Val Phe Glu Thr Asn Ile Arg Val Val Gly Gly Leu Leu Ser 115 120 125

- Ala His Leu Leu Ser Lys Lys Ala Gly Val Glu Val Glu Ala Gly Trp 130 135 140
- Pro Cys Ser Gly Pro Leu Leu Arg Met Ala Glu Glu Ala Ala Arg Lys 145 150 155 160
- Leu Leu Pro Ala Phe Gln Thr Pro Thr Gly Met Pro Tyr Gly Thr Val 165 170 175
- Asn Leu Leu His Gly Val Asn Pro Gly Glu Thr Pro Val Thr Cys Thr 180 185 190
- Ala Gly Ile Gly Thr Phe Ile Val Glu Phe Ala Thr Leu Ser Ser Leu 195 200 205
- Thr Gly Asp Pro Val Phe Glu Asp Val Ala Arg Val Ala Leu Met Arg 210 215 220
- Leu Trp Glu Ser Arg Ser Asp Ile Gly Leu Val Gly Asn His Ile Asp 225 230 235 240
- Val Leu Thr Gly Lys Trp Val Ala Gln Asp Ala Gly Ile Gly Ala Gly 245 250 255
- Val Asp Ser Tyr Phe Glu Tyr Leu Val Lys Gly Ala Ile Leu Leu Gln 260 265 270
- Asp Lys Leu Met Ala Met Phe Leu Glu Tyr Asn Lys Ala Ile Arg 275 280 285
- Asn Tyr Thr Arg Phe Asp Asp Trp Tyr Leu Trp Val Gln Met Tyr Lys 290 295 300
- Gly Thr Val Ser Met Pro Val Phe Gln Ser Leu Glu Ala Tyr Trp Pro 305 310 315 320
- Gly Leu Gln Ser Leu Xaa Gly Asp Ile Asp Asn Ala Met Arg Thr Phe 325 330 335
- Leu Asn Tyr Tyr Thr Xaa Trp Lys Gln Phe Gly Gly Leu Pro Glu Phe 340 345 350
- Tyr Asn Ile Pro Gln Gly Tyr Thr Val Glu Lys Arg Glu Gly Tyr Pro 355 360 365
- Leu Arg Pro Glu Leu Ile Glu Ser Ala Met Tyr Leu Tyr Arg Ala Thr 370 375 380
- Gly Asp Pro Thr Leu Leu Glu Leu Gly Arg Asp Ala Val Glu Ser Ile 385 390 395 400
- Glu Lys Ile Ser Lys Val Glu Cys Gly Phe Ala Thr Ile Lys Asp Leu 405 410 415
- Arg Asp His Lys Leu Asp Asn Arg Met Glu Ser Phe Phe Leu Ala Glu
  420 425 430
- Thr Val Lys Tyr Leu Tyr Leu Leu Phe Asp Pro Xaa Asn Phe Ile His

Ası	n Asr 450		y Se	r Thi	c Phe	455		a Val	l Ile	. Thr	Pro 460		Gly	Glu	Cys
Ile 465		ı Gly	/ Ala	a Gly	/ Gly 470		·Ile	Phe	e Asn	Thr 475		Ala	His	Pro	Ile 480
Ası	Pro	Ala	a Ala	a Leu 485	His	Суѕ	Cys	Gln	Arg 490		Lys	Glu	Glu	Gln 495	-
Glu	ı Val	Glu	Asp 500		Met	Arg	Glu	Phe 505		Ser	Leu	Lys	Arg 510	Ser	Arg
Ser	Lys	Phe 515		ı Lys	Asn	Thr	Vạ1 520		Ser	Gly	Pro	Trp 525	Glu	Pro	Pro
Ala	Arg 530		Gly	/ Thr	Leu	Phe 535	Ser	Pro	Glu	Asn	His 540	Asp	Gln	Ala	Arg
Glu 545		Lys	Pro	Ala	Lys 550	Gln	Lys	Val	Pro	Leu 555	Leu	Ser	Суѕ	Pro	Ser 560
Gln	Pro	Phe	Thr	Ser 565	Lys	Leu	Ala	Leu	Leu 570	Gly	Gln	Val	Phe	Leu 575	Asp
Ser	Ser														
<210> 83 <211> 100 <212> PRT <213> Homo sapiens															
<220 <221	)> L> S]	TE										•			
	2> (1 3> Xã		qual:	s sto	p tr	ansl	atio	n							
	)> 83 Ala		Туr	Tyr 5	Gln	Asņ	Phe	Tyr	Ile 10	Leu	Val	Val	Phe	Val 15	
Phe	Leu	His	Thr 20	Ser	Arg	Thr	Phe	Val 25	Leu	Pro	Val :	His .	Ala 30	Val	Lys
Asp	Ser	Ala 35	Gln 	Val	Leu (	Glu	Glu 40	Ile	Val	Lys :	His (	Glu :	Leu	Gly	Ser
Gln	Val 50	Ser	Leu	Leu	Ser :	Pro 55	Val	Glu	Glu	Pro (	Gly 1	Pro :	Ser	Pro (	Cys
Thr 65	Pro	Asp	Ile	Gln	Gly 7	Arg (	Gly '	Val	Arg	Lys '	Thr I	Leu 1	Pro .	Pro i	Asn 80

Gly Leu Asp Gly Met Phe Pro Ser Ser Cys Ser Pro Asn Val Ser Thr 85 90 95

<222> (276)

<223> Xaa equals stop translation

49 Gly Ala His Xaa 100 <210> 84 <211> 48 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (48) <223> Xaa equals stop translation <400> 84 Met Gly Glu Phe Thr Ser Val Val Cys Tyr Cys Phe Ile Leu Ser Leu 10 Ile Ile Gly Ser Val Val Arg Trp Gln Gly Cys Gly Ala Glu Trp Gly 2.5 Phe Ala Leu Gly Glu His Met Trp Gln Arg Ala Gln Glu Asp Leu Xaa 40 <210> 85 <211> 47 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (47) <223> Xaa equals stop translation <400> 85 Met Asn Ala Thr Thr Ser Phe Gln Phe Thr Thr Pro Thr Arg Leu Trp Leu Met Leu Leu Leu Asn Tyr Gln Ile Phe Cys Cys Tyr Thr Val Thr Phe Lys Glu Phe Gly Lys Leu Val Ser Thr Ala Asn Leu Gly Xaa <210> 86 <211> 276 <212> PRT <213> Homo sapiens <220> <221> SITE

<400> 86

Met Gly Asn Phe Arg Gly His Ala Leu Pro Gly Thr Phe Phe Phe Ile  $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$ 

Ile Gly Leu Trp Trp Cys Thr Lys Ser Ile Leu Lys Tyr Ile Cys Lys
20 25 30

Lys Gln Lys Arg Thr Cys Tyr Leu Gly Ser Lys Thr Leu Phe Tyr Arg 35 40 45

Leu Glu Ile Leu Glu Gly Ile Thr Ile Val Gly Met Ala Leu Thr Gly 50 55 60

Met Ala Gly Glu Gln Phe Ile Pro Gly Gly Pro His Leu Met Leu Tyr 65 70 75 80

Asp Tyr Lys Gln Gly His Trp Asn Gln Leu Leu Gly Trp His His Phe
85 90 95

Thr Met Tyr Phe Phe Phe Gly Leu Leu Gly Val Ala Asp Ile Leu Cys 100 105 110

Phe Thr Ile Ser Ser Leu Pro Val Ser Leu Thr Lys Leu Met Leu Ser 115 120 125

Asn Ala Leu Phe Val Glu Ala Phe Ile Phe Tyr Asn His Thr His Gly 130 135 140

Arg Glu Met Leu Asp Ile Phe Val His Gln Leu Leu Val Leu Val Val 145 150 155 160

Phe Leu Thr Gly Leu Val Ala Phe Leu Glu Phe Leu Val Arg Asn Asn 165 170 175

Val Leu Leu Glu Leu Leu Arg Ser Ser Leu Ile Leu Leu Gln Gly Ser 180 . 185 . 190

Trp Phe Phe Gln Ile Gly Phe Val Leu Tyr Pro Pro Ser Gly Gly Pro 195 200 205

Ala Trp Asp Leu Met Asp His Glu Asn Ile Leu Phe Leu Thr Ile Cys 210 215 220

Phe Cys Trp His Tyr Ala Val Thr Ile Val Ile Val Gly Met Asn Tyr 225 230 235 240

Ala Phe Ile Thr Trp Leu Val Lys Ser Arg Leu Lys Arg Leu Cys Ser 245 250 255

Ser Glu Val Gly Leu Leu Lys Asn Ala Glu Arg Glu Gln Glu Ser Glu 260 265 270

Glu Glu Met Xaa 275

<210> 87

<211> 86

<212> PRT

```
51
<213> Homo sapiens
 <220>
 <221> SITE
 <222> (86)
 <223> Xaa equals stop translation
 <400> 87
 Met Ala Ser Lys Thr Leu Tyr Asp Leu Ala Leu Ala Tyr Leu Ser Ala
                  5
                                      10
 Leu Ala Leu Pro Thr Leu Ala Gln Ser Leu Leu Phe Ser His Ser Gly
             20
Ser Leu Thr Ile Pro Arg Cys Thr Arg Leu Ser His Thr Ser Ala Pro
                             40
Leu His Val Leu Phe Ala Val Arg Gly Met Pro Phe Thr Val Thr Thr
Leu Leu Ile His Ser Thr Asn Ala Ser Ser Phe Phe Tyr Thr Gln Leu
                     70
Ser Leu Lys Phe Phe Xaa
<210> 88
<211> 95
<212> PRT
<213> Homo sapiens
<220>
<221> SITE.
<222> (95)
<223> Xaa equals stop translation
<400> 88
Met Ala Ile Leu His Leu Phe Lys Phe Phe Ser Phe Phe Asn Phe Val
Ile Ser Ala Ser Pro Ile Tyr Leu Leu Tyr His Tyr Leu Arg Ser Asp
                                 25
Lys Arg Val Leu Val Gly Gln Val Leu Gln Ser Leu Ser Gly Asn Asn
         35
Ile Cys His Ile Thr Leu Leu Ile Cys Leu Leu Leu Ile Trp Glu Ala
                        55
Lys His Trp Cys Leu Arg Gly Leu Pro Ile Ile Asn Cys His Tyr His
                    70
                                        75
Tyr Ser Pro Leu Leu Phe Val Trp Lys Leu Asn Lys Gly Gln Xaa
                85
```

```
<212> PRT
```

<213> Homo sapiens

<220>

<221> SITE

<222> (313)

<223> Xaa equals stop translation

<400> 89

Met Pro Pro Pro Arg Val Phe Lys Ser Phe Leu Ser Leu Leu Phe Gln
1 5 10 15

Gly Leu Ser Val Leu Leu Ser Leu Ala Gly Asp Val Leu Val Ser Met 20 25 30

Tyr Arg Glu Val Cys Ser Ile Arg Phe Leu Phe Thr Ala Val Ser Leu 35 40 45

Leu Ser Leu Phe Leu Ser Ala Phe Trp Leu Gly Leu Leu Tyr Leu Val
50 55 60

Ser Pro Leu Glu Asn Glu Pro Lys Glu Met Leu Thr Leu Ser Glu Tyr
65 70 75 80

His Glu Arg Val Arg Ser Gln Gly Gln Gln Leu Gln Gln Leu Gln Ala 85 90 95

Glu Leu Asp Lys Leu His Lys Glu Val Ser Thr Val Arg Ala Ala Asn 100 105 110

Ser Glu Arg Val Ala Lys Leu Val Phe Gln Arg Leu Asn Glu Asp Phe 115 120 125

Val Arg Lys Pro Asp Tyr Ala Leu Ser Ser Val Gly Ala Ser Ile Asp 130 135 140

Leu Gln Lys Thr Ser His Asp Tyr Ala Asp Arg Asn Thr Ala Tyr Phe 145 150 155 160

Trp Asn Arg Phe Ser Phe Trp Asn Tyr Ala Arg Pro Pro Thr Val Ile 165 170 175

Leu Glu Pro His Val Phe Pro Gly Asn Cys Trp Ala Phe Glu Gly Asp 180 185 190

Gln Gly Gln Val Val Ile Gln Leu Pro Gly Arg Val Gln Leu Ser Asp 195 200 205

Ile Thr Leu Gln His Pro Pro Pro Ser Val Glu His Thr Gly Gly Ala 210 215 220

Asn Ser Ala Pro Arg Asp Phe Ala Val Phe Gly Leu Gln Val Tyr Asp 225 230 235 240

Glu Thr Glu Val Ser Leu Gly Lys Phe Thr Phe Asp Val Glu Lys Ser 245 250 255

Glu Ile Gln Thr Phe His Leu Gln Asn Asp Pro Pro Ala Ala Phe Pro
260 265 270

```
Lys Val Lys Ile Gln Ile Leu Ser Asn Trp Gly His Pro Arg Phe Thr 275 280 285
```

Cys Leu Tyr Arg Val Arg Ala His Gly Val Arg Thr Ser Glu Gly Ala 290 295 300

Glu Gly Ser Ala Gln Gly Pro His Xaa 305 310

<210> 90

<21:1> 80

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (80)

<223> Xaa equals stop translation

<400> 90

Met Met Ser Ser Cys Leu Val Val Val Ile Thr Leu Arg Ala Tyr Phe 1 5 10 15

Ser Trp Leu Gln Ala Ile Arg Ser Gln Val Val Trp Ser Arg Met Lys
20 25 30

Arg Leu Gln Ser Ala Ser Arg Gln Ser Gly Leu Ser Ile Pro Arg Ser 35 40 45

Glu Met Ser Ala Leu His Arg Leu Gln Asp Trp Ser Asp Lys Ser His
50 55 60

Ile Leu Phe Phe Ile Phe Leu Pro Arg Val Cys Arg Phe Pro Leu Xaa 65 70 75 80

<210> 91

<211> 47

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> .(47)

<223> Xaa equals stop translation

<400> 91

Met Leu Phe Leu Thr Cys Arg Ser Pro His Ser Cys Cys Val Ile Thr 1 5 10 15

Trp Phe Phe Leu Cys Ala Cys Ala Leu Val Ser Ser Ser Tyr Gln Asp 20 25 30

Asn Asn Pro Ile Gly Phe Arg Pro Glu Pro Tyr Asn Pro Ile Xaa

ļ.

<u>Ļ</u>.

```
<210> 92
 <211> 129
 <212> PRT
 <213> Homo sapiens
 <220>
 <221> SITE
 <222> (106)
 <223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (129)
<223> Xaa equals stop translation
<400> 92
Met Gly Ala Ala Gly Arg Gln Asp Phe Leu Phe Lys Ala Met Leu Thr
Ile Ser Trp Leu Thr Leu Thr Cys Phe Pro Gly Ala Thr Ser Thr Val
Ala Ala Gly Cys Pro Asp Gln Ser Pro Glu Leu Gln Pro Trp Asn Pro
         35
                              40
Gly His Asp Gln Asp His His Val His Ile Gly Gln Gly Lys Thr Leu
Leu Leu Thr Ser Ser Ala Thr Val Tyr Ser Ile His Ile Ser Glu Gly
                    70
                                          75
Gly Lys Leu Val Ile Lys Asp His Asp Glu Pro Ile Val Leu Arg Thr
                 85
                                     90
Arg His Ile Leu Ile Asp Asn Gly Gly Xaa Leu His Ala Gly Glu Cys
                                105
                                                     110
Pro Leu Pro Phe Pro Gly Gln Phe His His His Phe Val Trp Lys Gly
      . 115
                            120
Xaa
```

<210> 93 <211> .71 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (71)

<223> Xaa equals stop translation

<400> 93

Met Ala Phe Cys Phe Phe Ile Phe Tyr Leu Tyr Ser Phe Pro Ser Ile

```
Ser His Gly Asp Leu His Lys Phe Gly Val Phe Ser Trp Cys Thr His 20 25 30
```

Val Arg Arg Phe Lys Val Leu Tyr Ala Ser Val Leu Leu Lys Ser Thr 35 40 45

Glu Ile Leu Leu Ala Ile Gln Glu Pro Phe Ser Gly Ser Trp Ser Tyr 50 55 60

Phe Leu Leu Asn Leu Ser Xaa 65 70

<210> 94

<211> 48

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (48)

<223> Xaa equals stop translation

<400> 94

Met Gln Trp Ala Val Lys Cys Trp Leu Phe Gln Leu Cys Met Asp Ser 1 5 10 15

Ser Leu Ala Ser Leu Gly Trp Ala Glu Lys Arg Glu Leu Leu Phe Pro 20 25 30

Lys Arg Pro Ser Gln Leu Cys Ser Thr Thr Leu Cys Ser Pro Gly Xaa 35 40 45

<210> 95

<211> 57

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (57)

<223> Xaa equals stop translation

<400> 95

Met Asn Trp Cys Leu Cys Ile Ile Ser Leu Thr Thr Leu Leu Ser Ile 1 5 10 15

Pro Val His Ile Val Gly Glu Glu Lys Asp Met Leu Lys Cys Thr Phe 20 . 25 30

Cys Leu Leu Asn Thr Leu Lys Lys Cys Val Val Trp Lys Arg Leu Tyr 35 40 45

```
56
 His Asn Gly Gly Ala Asn Asn Leu Xaa
 <210> 96
 <211> 73
 <212> PRT
 <213> Homo sapiens
 <220>
 <221> SITE
 <222> (73)
 <223> Xaa equals stop translation
<400> 96
Met Ala Gly Arg Lys Pro Ala Ala Pro Val Phe Thr Val Val Arg Lys
                                      10
Val Leu Cys Phe Gly Phe Gly Val Phe Val Leu Phe Val Phe Cys Leu
     20
                                 25
Ala Cys Leu Phe Phe Lys Gly Lys Lys Val Cys Asn Tyr Phe Ile Gln
                             40
Ile Ser Arg Tyr Ile Ser Val Asn Asn Lys Arg Phe Tyr Asn Ser Lys
Lys Met Met Tyr Ile Leu Val Cys Xaa
<210> 97
<211> 60
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (60)
<223> Xaa equals stop translation
<400> 97
Met Leu Pro Tyr Phe Lys Trp Leu Leu His Leu Val Arg Leu Ser Phe
                  5
Val Ser Leu Ala Ser Pro Trp Asp Ser Thr Ala Gly Leu Gly Leu Lys
                                 25
Leu Pro Asn Ile Tyr Gly Met Thr Ser Met Gly Trp Asp Pro Ser Pro
Gly Ala Arg Gly Gly Val Gly Thr Glu Lys Arg Xaa
                         55
```

<210> 98

<211> 49

<212> PRT

<213> Homo sapiens

```
<220>
 <221> SITE
 <222> (49)
 <223> Xaa equals stop translation
 <400> 98
 Met Trp Leu Gln Thr Leu Pro Leu Phe Ala Thr Gly Cys Lys Ala Val
 Pro Trp Asn Cys Phe Gly Trp Cys Leu Thr Gln Glu Val Phe Ala Val
              20
 Leu Gly Asp Leu Val Asn Ser Ala Asp Gln Val Asn Arg Leu Phe Phe
 Xaa
 <210> 99
 <211> 57
 <212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (57)
<223> Xaa equals stop translation
<400> 99
Met Arg Ser Ser Phe Leu Tyr Ala Ile Pro Ala Val Phe Phe Leu
                                      10
Thr Gly Pro Cys Leu Arg Ile Asn Lys Ser Val Met Ser Glu Thr Lys
Val Tyr Ser Ser Val Cys Arg Cys Val Ala Pro Pro Phe Ser Pro Ala
Ala Pro His Ile Gln Ser Arg Ser Xaa
     50
                          55
<210> 100
<211> 70
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (70)
<223> Xaa equals stop translation
<400> 100
Met Ala Cys Arg Ser Trp Cys Phe Thr Leu Leu Ala Asn Val Ser Phe
 1
                                                          15.
```

Thr Leu Leu Pro Val His Trp Gly Ser Ala Glu Ala Val Phe Ser

```
Val Ser Ile Thr Leu Gly Cys Arg Pro Pro Ser Ser Leu Ser Val Pro 35 40 45
```

Leu Ser Arg Gly Arg Arg Asp Leu Gly Ser His Val Leu Ala Leu Val 50 55 60

Ala Ser Leu Trp Lys Xaa 65 70

<210> 101

<211> 83

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (83)

<223> Xaa equals stop translation

<400> 101

Met Ala Glu Thr Arg Gly Leu Cys Ser Val Cys Phe Cys Ala Leu Cys 1 5 10 15

Leu Tyr Gly Ser Tyr Ala Ala Cys Pro Pro Cys Phe Ser Arg Glu Pro
20 25 30

Arg Gln Arg Arg His His Gly Asn Asp Trp Val Arg Trp Lys Phe Arg 35 40 45

Gly Pro Ala Leu Val Gly Arg Glu Ala Trp Leu Thr Ser Gln Ala Gln
50 55 60

His Val Cys Gly Ser Leu Leu Cys Thr Val Ser Ser Ser Pro Lys Trp 65 70 75 80

Glu Ser Xaa

<210> 102

<211> 43

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (43)

<223> Xaa equals stop translation

<400> 102

Met Ser Ser Pro Cys Leu Phe Leu Ser Leu Thr Glu Asn Ile Phe Met

1 5 10 15

Ser Phe Leu Ile Ala Gly Phe Gly Leu Phe Ile Ile Met Phe Ile Asn 20 25 30 Thr Phe Asp Ser Thr Val Arg Asn Val Gly Xaa 35 40

<210> 103

<211> 325

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (286)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (318)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 103

Met Ile Ala Glu Leu Val Ser Ser Ala Leu Gly Leu Ala Leu Tyr Leu 1 5 10 15

Asn Thr Leu Ser Ala Asp Phe Cys Tyr Asp Asp Ser Arg Ala Ile Lys
20 25 30

Thr Asn Gln Asp Leu Leu Pro Glu Thr Pro Trp Thr His Ile Phe Tyr 35 40 45

Asn Asp Phe Trp Gly Thr Leu Leu Thr His Ser Gly Ser His Lys Ser 50 55 60

Tyr Arg Pro Leu Cys Thr Leu Ser Phe Arg Leu Asn His Ala Ile Gly 65 70 75 80

Gly Leu Asn Pro Trp Ser Tyr His Leu Val Asn Val Leu Leu His Ala 85 90 95

Ala Val Thr Gly Leu Phe Thr Ser Phe Ser Lys Ile Leu Leu Gly Asp 100 105 110

Gly Tyr Trp Thr Phe Met Ala Gly Leu Met Phe Ala Ser His Pro Ile 115 120 125

His Thr Glu Ala Val Ala Gly Ile Val Gly Arg Ala Asp Val Gly Ala 130 135 140

Ser Leu Phe Phe Leu Leu Ser Leu Leu Cys Tyr Ile Lys His Cys Ser 145 150 155 160

Thr Arg Gly Tyr Ser Ala Arg Thr Trp Gly Trp Phe Leu Gly Ser Gly
165 170 175

Leu Cys Ala Gly Cys Ser Met Leu Trp Lys Glu Gln Gly Val Thr Val 180 185 190

Leu Ala Val Ser Ala Val Tyr Asp Val Phe Val Phe His Arg Leu Lys
195 200 205

```
60
Ile Lys Gln Ile Leu Pro Thr Ile Tyr Lys Arg Lys Asn Leu Ser Leu
                        215
Phe Leu Ser Ile Ser Leu Leu Ile Phe Trp Gly Ser Ser Leu Leu Gly
                    230
                                        235
Ala Arg Leu Tyr Trp Met Gly Asn Lys Pro Pro Ser Phe Ser Asn Ser
                245
                             250
Asp Asn Pro Ala Ala Asp Ser Asp Ser Leu Leu Thr Arg Thr Leu Thr
                                265
Phe Phe Tyr Leu Pro Thr Lys Asn Leu Trp Leu Leu Xaa Pro Asp
                            280
Thr Leu Ser Phe Glu Trp Ser Met Asp Ala Val Pro Leu Leu Lys Thr
                                      . 300
    290
                        295
Val Cys Asp Trp Arg Asn Leu His Thr Val Gly Leu Leu Xaa Trp Asp
                                        315
                310
Ser Phe Ser Leu Ala
                325
<210> 104
<211> 46
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (46)
<223> Xaa equals stop translation
<400> 104
Met Leu Leu Gln Phe Ser Ile Phe Phe Ala Pro Val Val Cys Leu Pro
 1
                  5
Lys Tyr Ser Pro Phe Met Lys Glu Glu Cys Lys Ala Asp Pro Thr Arg
             20
Asp Tyr Lys Phe Leu Tyr Ile Tyr Ile Glu Arg Gly Thr Xaa
                            40
<210> 105
<211> 49
<212> .PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (49)
<223> Xaa equals stop translation
<400> 105
```

Met Cys Gly Ile Phe Ser Ile Leu Cys Ile Lys Ile Phe Phe Leu Ile

```
Leu Gln Leu Phe Phe Tyr Phe Pro Leu Tyr Asn Cys Ile Phe Asn Thr
        . 20
                                25
Ser Ile Ser Ile Leu Asn Arg Val Leu Val Lys Lys Arg Ser Thr Phe
                            40
```

Xaa

```
<210> 106
<211> 66
<212> PRT
<213> Homo sapiens
```

<220> <221> SITE <222> (66)

<223> Xaa equals stop translation

<400> 106

Met Tyr Leu Leu His Ser Ile Leu Phe Met Leu Cys Leu Val Gly Met

Val Glu Phe Asn Lys Ser Thr Arg Glu Cys Ile Leu Phe Lys Thr Leu 20 25 . 30

Trp Leu Ile Pro Leu Phe Thr Tyr Lys Leu Ala Tyr Leu Cys Glu Lys 40

Leu Lys Phe Val Lys Phe Cys Ala Ser Leu Leu Ile Ala Val Phe Asp

His Xaa 65

<210> 107

<211> 46

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (46)

<223> Xaa equals stop translation

<400> 107

Met Thr Ala Phe Ile Thr Tyr Pro Leu Leu Phe Ile Cys Leu Pro Ser

Val Ser His Phe Leu Pro Val Pro Thr Cys Leu Phe Pro Cys Glu Gly

Leu Asn Cys Glu Pro Leu Arg Phe Asn Val Arg Ser Pro Xaa 40

<222> (228)

```
62
 <210> 108
 <211> 74
 <212> PRT
 <213> Homo sapiens
 <220>
 <221> SITE
 <222> (74)
 <223> Xaa equals stop translation
 <400> 108
 Met Pro His Leu Asn His Ser Leu Phe Leu Phe Leu Ser Val Gly Cys
                                     10
 Ala Leu Ser Ala Gln Met Ala Phe His Gln Leu Asp Leu Glu Gln Pro
    20 _ ... 25
                                                    30
 Glu Asp Ala Thr Leu Pro Ser Glu Pro Phe Phe His His Thr Val Val
                             40
 Pro Gln Arg Ser Phe Ser Arg Ile Leu Val Asn Met Gly Gln Leu Ser
     50
            55
Glu Thr Leu Ala Glu Gln Gly Tyr Ile Xaa
. 65
                     70
<210> 109
<211> 50
<212> 'PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (50)
<223> Xaa equals stop translation
<400> 109.
Met Phe Pro Trp Cys Val Cys Val Ile Ala Cys Ile Ser Ala Val Thr
                5 ·
Pro Leu Ile Gln Gly Phe Thr Phe Cys Ser Phe Ser Tyr Pro Gln Tyr
                                25
Ser Thr Val Arg Tyr Phe Glu Arg Glu Thr Thr Leu Thr Leu Leu Leu
                            40
                                               45
Leu Xaa
    50 .
<210> 110
<211> 228
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
```

<223> Xaa equals stop translation

.<400> 110

Met Ala Ala Pro Ile Ile Gly Val Thr Pro Met Phe Ala Val Cys Phe 1 5 10 15

Phe Gly Phe Gly Leu Gly Lys Lys Leu Gln Gln Lys His Pro Glu Asp 20 25 30

Val Leu Ser Tyr Pro Gln Leu Phe Ala Ala Gly Met Leu Ser Gly Val 35 40 45

Phe Thr Thr Gly Ile Met Thr Pro Gly Glu Arg Ile Lys Cys Leu Leu 50 55 60

Gln Ile Gln Ala Ser Ser Gly Glu Ser Lys Tyr Thr Gly Thr Leu Asp 65 70 75 80

Cys Ala Lys Lys Leu Tyr Gln Glu Phe Gly Ile Arg Gly Ile Tyr Lys 85 90 95

Gly Thr Val Leu Thr Leu Met Arg Asp Val Pro Ala Ser Gly Met Tyr
100 105 110

Phe Met Thr Tyr Glu Trp Leu Lys Asn Ile Phe Thr Pro Glu Gly Lys
115 120 125

Arg Val Ser Glu Leu Ser Ala Pro Arg Ile Leu Val Ala Gly Gly Ile 130 135 140

Ala Gly Ile Phe Asn Trp Ala Val Ala Ile Pro Pro Asp Val Leu Lys
145 150 155 160

Ser Arg Phe Gln Thr Ala Pro Pro Gly Lys Tyr Pro Asn Gly Phe Arg 165 170 175

Asp Val Leu Arg Glu Leu Ile Arg Asp Glu Gly Val Thr Ser Leu Tyr 180 185 190

Lys Gly Phe Asn Ala Val Met Ile Arg Ala Phe Pro Ala Asn Ala Ala 195 200 205

Cys Phe Leu Gly Phe Glu Val Ala Met Lys Phe Leu Asn Trp Ala Thr 210 215 220

Pro Asn Leu Xaa 225

<210> 111

<211> 74

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (74)

<223> Xaa equals stop translation

```
64
 <400> 111
 Met Thr Arg Ala Thr Thr Glu Phe Pro Ser Pro Lys Phe Ser Thr Leu
 Leu Val Leu Val Leu Ser Leu Leu Arg Ala His Ile Leu Ile Pro Lys
                                  25
 Glu Pro Leu Gln Ser Ser Cys Leu Leu Lys Thr Leu Tyr Trp Ala Cys
                              40
 Ser Cys Asn Ser Asp Phe Ile Arg Cys Ile Leu Arg Glu Val Ser Gly
 Lys Ile Trp Arg Phe Ser Lys Thr Leu Xaa
                      70
<210> 112
<211> 43
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (43)
<223> Xaa equals stop translation
<400> 112
Met Ile Tyr Phe Leu Cys Leu Ala Tyr Cys Lys Phe Phe Ile Leu Ile
                                      10
His Ser Ser Asn Ile Ile Ala Thr Lys Lys Cys Leu Tyr Leu Asp Gln
Arg Gln Asp Phe Leu Cys Val Cys Phe Ala Xaa
<210> 113
<211> 180
<212> PRT
<213> Homo sapiens
<220>
<221> SITE -
<222> (180)
<223> Xaa equals stop translation .
<400> 113
Met Ala Cys Lys Gly Leu Leu Gln Gln Val Gln Gly Pro Arg Leu Pro
Trp Thr Arg Leu Leu Leu Leu Leu Val Phe Ala Val Gly Phe Leu
```

Arg Leu Leu Arg Ser Ser Gly Phe Leu Pro Ala Ser Gln Gln Ala Cys

Cys His Asp Leu Arg Ser His Ser Ser Phe Gln Ala Ser Leu Thr Gly

Ala 65	Lys	Leu	Туг	Ser	Tyr 70		. Leu	Glr	ı Gly	туr 75		Trp	Leu	Gly	Glu 80
Thr	Leu	Pro	Leu	Trp 85		Ser	His	Leu	Leu 90		Val	Val	Arg	Pro 95	Ser
Leu	Gln	Leu	Ala 100		Ala	His	Thr	Asn 105		Thr	Val	Ser	Phe 110	Leu	Ser
Ala	His	Cys 115	Ala	Ser	His	Leu	Ala 120	Trp	Phe	Gly	Asp	Ser 125	Leu	Thr	Ser
Leu	Ser 130	Gln	Arg	Leu		Ile .135	Gln	Leu	Pro	Asp	Ser 140	Val	Asn	Gln	Leu
Leu 145	Arg	Tyr	Leu	Arg	Glu 150	Leu	Pro	Leu	Leu	Phe 155	His	Gln	Asn	Val	Leu 160
Leu	Pro	Leu	Trp	His 165	Leu	Leu	Leu	Glu	Ala 170	Leu	Ala	Trp	Ala	Gln 175	Gly
Ala	Leu	Pro	Xaa 180												
<210> 114 <211> 47 <212> PRT <213> Homo sapiens															
<220 <221 <222 <223	> SI > (4	7)	uals	sto	p tr	ansl	atio	n	·		•		÷		
<400 Met			Phe	Ile	Tyr	Phe	Val	Leu	Gln	Gly	Leu	Phe ·	Cys :	Pro	Lys
1	÷			5					10					15	
Asn (	Glu (	Gly .	Ala 20	Ser	Pro (	Gly	Leu (	Gln 25	Phe	Pro	Thr	Leu	Ser 1	Leu .	Ala
Gly 1	His A	Ala :	Ser	Pro .	Ala 1		Val :	Pro	His	Gly 1	Met (	Gly ( 45	Gly :	Xaa	•
<211: <212:	<210> 115 <211> 81 <212> PRT <213> Homo sapiens														
<220>	•			•		-									

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE <222> (34)

66 <221> SITE <222> (81) <223> Xaa equals stop translation <400> 115 Met Asn Val Thr Ser Val Ile Leu Val Leu Ile Leu Trp Asn Val Ile . 10 Gly Val Ala Thr Trp Val His Gln Asn Thr Phe Leu Tyr Lys Arg Gln 20 25 Met Xaa Glu Leu Lys Arg Leu Lys Asp Arg Val Phe Cys Phe Phe Val Leu Ile Trp Leu Leu Gly Ile Lys Ile Arg Pro Arg Ser Leu Lys Ile . 55 . 60 Ser Asn Arg Gly Arg Pro Leu Ile Asp Leu Lys Ser Val Asn Ser Leu 70 Xaa <210> 116 <211> 68 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (68) <223> Xaa equals stop translation <400> 116 Met Gln Pro Ala Cys Leu Ala Pro Cys Leu Asp Ala Leu Thr Ser Phe Cys Leu Gly Leu Leu Lys Leu Thr Phe Cys Leu Ala Phe Phe Pro Ser 20 25 Gly Val Leu Glu Gly Glu Cys Ser Phe Phe Thr Met Ser Arg Ser Leu Ser His Pro Arg Thr Leu His Arg Tyr Thr Thr Glu Arg Pro Ala His 50 Ser Arg His Xaa 65 . <210> 117 <211> 43

<220>
<221> SITE
<222> (43)

<212> PRT

<213> Homo sapiens

<223> Xaa equals stop translation

<400> 117

Met Phe Leu Val Phe Trp Leu Leu Gly Ile Tyr Phe Cys His Leu Leu 1 5 10 15

Val Ile Thr Val Leu Thr Lys Trp Ile Leu Ala Pro Pro Tyr Leu Met 20 25 30

Ala Gln Thr Thr Thr Pro Gln Ser Leu Tyr Xaa 35 40

<210> 118

<211> 212

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (212)

<223> Xaa equals stop translation

<400> 118

Met Ile Ser Leu Pro Gly Pro Leu Val Thr Asn Leu Leu Arg Phe Leu

1 5 10 15

Phe Leu Gly Leu Ser Ala Leu Asp Val Ile Arg Gly Ser Leu Ser Leu 20 25 30

Thr Asn Leu Ser Ser Met Ala Gly Val Tyr Val Cys Lys Ala His
35 40 45

Asn Glu Val Gly Thr Ala Gln Cys Asn Val Thr Leu Glu Val Ser Thr 50 55 60

Gly Pro Gly Ala Ala Val Val Ala Gly Ala Val Val Gly Thr Leu Val
65 70 75. 80

Gly Leu Gly Leu Leu Ala Gly Leu Val Leu Leu Tyr His Arg Arg Gly 85 90 95

Lys Ala Leu Glu Glu Pro Ala Asn Asp Ile Lys Glu Asp Ala Ile Ala 100 105 110

Pro Arg Thr Leu Pro Trp Pro Lys Ser Ser Asp Thr Ile Ser Lys Asn

Gly Thr Leu Ser Ser Val Thr Ser Ala Arg Ala Leu Arg Pro Pro His 130 135 140

Gly Pro Pro Arg Pro Gly Ala Leu Thr Pro Thr Pro Ser Leu Ser Ser 145 150 155 160

Gln Ala Leu Pro Ser Pro Arg Leu Pro Thr Thr Asp Gly Ala His Pro 165 170 175

Gln Pro Ile Ser Pro Ile Pro Gly Gly Val Ser Ser Ser Gly Leu Ser 180 185 190

```
Arg Met Gly Ala Val Pro Val Met Val Pro Ala Gln Ser Gln Ala Gly
          195
                              200
  Ser Leu Val Xaa
      210
  <210> 119
 <211> 44
 <212> PRT
 <213> Homo sapiens
 <220>
 <221> SITE
 <222> (44)
 <223> Xaa equals stop translation
 Met Lys Leu Pro Trp Asn Ile Val Asn Ile Leu Lys Ala Ser Ala Leu
                   5
 Tyr Ala Leu Lys Trp Leu Leu Leu Ile Leu Tyr Tyr Val Ile Phe Thr
                                   25
 Leu Lys Lys Glu Lys Ile Ala Leu Leu Tyr Thr Xaa
          35
 <210> 120
 <211> 127
 <212> PRT
<213> Homo sapiens
 <220>
<221> SITE
 <222> (127)
 <223> Xaa equals stop translation
 <400> 120
 Met Gly Thr Ser Ala Leu Trp Pro Phe Leu Pro Leu Leu Phe Leu Leu
                   5
                                      10
Gly Phe Leu Phe Ser Ser Cys Gly Phe Pro Glu Ala Ser Phe Gly Pro
              20
                                  25
Trp Val Val Val Arg Ala Glu Leu Trp Gly Cys Val Val Gly Ala Ala
                              40
Cys Val Leu Gly Leu Tyr Trp Gln Val Gly Gln Ser Ser Leu Asn Thr
     50
Leu Ala Arg Ser Gln Lys Pro Gly Leu Arg Val Gln Pro Gly Lys Pro
Gly Lys Leu Leu Pro Val Thr Phe Gln Met Leu Pro Pro Pro Cys Gly
                  85
                                                           95
```

Gly Cys Cys Ser Pro Leu Gly Leu Cys Pro Ser Ser Gly Gly Ser Arg

```
Met Trp Arg Arg Thr Trp Val Gly Ala Arg Ala Leu His Pro Xaa
115 120 125
```

```
<210> 121
```

<211> 57

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (57)

<223> Xaa equals stop translation

\_ -

<400> 121

Met Phe Leu Lys Val Leu Val Phe Leu Ile Phe Phe Ser Pro Phe Ser 1 5 10 15

Ser Ser Leu Phe Ser Gly Glu Ala Val Arg Gly Arg Gly Ala Gly Leu 20 25 30

Gly Leu Gly Ile Gly Arg Gly Trp Thr Ser Cys Leu Ser Val Leu Asn 35 40 45

Gly Cys Asp Gly Ala Arg Ser His Xaa 50 55

<210> 122

<211> 46

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (46)

<223> Xaa equals stop translation

<400> 122

Met Trp Ser Ile Lys Leu Thr Cys Arg Leu Arg Gly Phe Trp Phe Trp 1 5 10 15

Phe Trp Val Leu Phe Phe Cys Gly Gly Gly Ala Gly Ile Trp Lys Asn 20 25 30

Leu Ala Leu Tyr Val Thr Glu Ile Phe Phe Ala Arg Thr Xaa 35 40 45

<210> 123

<211> 58

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (47)

```
70
  <223> Xaa equals any of the naturally occurring L-amino acids
 <400> 123
 Met Arg Leu Ile Leu Ile Ile Gly Arg Leu Ala Leu Asp Ser Ile Ala
 Gln Asn Ser Gln Asn Val Ser Gln Ser Ser Gln Gly Ser Tyr His His
 Gly Ser Ser Pro Pro Arg Pro Val Arg Pro Leu Pro Gly Pro Xaa Arg
 Arg Arg Asp Pro Ser Leu Asp Cys Cys Ser
      50
 <210> 124
 <211> 57
 <212> PRT
 <213> Homo sapiens
<220>
<221> SITE
<222> (57)
<223> Xaa equals stop translation
<400> 124
Met Lys Ala Met Leu Gln Cys Phe Arg Phe Tyr Phe Met Arg Leu Phe
                  5 10
Val Phe Leu Leu Thr Ser Gly Lys Met Ile Asp Ser Asp Ser Thr Met
                                 25
Gln Gly Cys Trp Tyr Gln Pro Glu Pro Tyr Arg Trp Gln Ser Leu Glu
                            40
Lys Trp Ser Gln Lys Met Glu Leu Xaa
     50
<210> 125
<211> 273
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (273)
<223> Xaa equals stop translation
<400> 125
Met Trp Gly Asn Lys Phe Gly Val Leu Leu Phe Leu Tyr Ser Val Leu
                                    10
Leu Thr Lys Gly Ile Glu Asn Ile Lys Asn Glu Ile Glu Asp Ala Ser
            20
```

Glu Pro Leu Ile Asp Pro Val Tyr Gly His Gly Ser Gln Ser Leu Ile

Asn Leu Leu Thr Gly His Ala Val Ser Asn Val Trp Asp Gly Asp 50 . 60

Arg Glu Cys Ser Gly Met Lys Leu Leu Gly Ile His Glu Gln Ala Ala 65 70 75 80

Val Gly Phe Leu Thr Leu Met Glu Ala Leu Arg Tyr Cys Lys Val Gly 85 90 95

Ser Tyr Leu Lys Ser Pro Lys Phe Pro Ile Trp Ile Val Gly Ser Glu 100 105 110

Thr His Leu Thr Val Phe Phe Ala Lys Asp Met Ala Leu Val Ala Pro 115 120 125

Glu Ala Pro Ser Glu Gln Ala Arg Arg Val Phe Gln Thr Tyr Asp Pro 130 135 140

Glu Asp Asn Gly Phe Ile Pro Asp Ser Leu Leu Glu Asp Val Met Lys 145 150 155 160

Ala Leu Asp Leu Val Ser Asp Pro Glu Tyr Ile Asn Leu Met Lys Asn 165 170 175

Lys Leu Asp Pro Glu Gly Leu Gly Ile Ile Leu Leu Gly Pro Phe Leu
180 185 190

Gln Glu Phe Phe Pro Asp Gln Gly Ser Ser Gly Pro Glu Ser Phe Thr 195 200 205

Val Tyr His Tyr Asn Gly Leu Lys Gln Ser Asn Tyr Asn Glu Lys Val 210 215 220

Met Tyr Val Glu Gly Thr Ala Val Val Met Gly Phe Glu Asp Pro Met 225 230 235 240

Leu Gln Thr Asp Asp Thr Pro Ile Lys Arg Cys Leu Gln Thr Lys Trp
245 250 255

Pro Tyr Ile Glu Leu Leu Trp Thr Thr Asp Arg Ser Pro Ser Leu Asn 260 265 270

Xaa

<210> 126

<211> .281

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (281)

<223> Xaa equals stop translation

<400> 126

Met Ala Pro Ser Gly Ser Leu Ala Val Pro Leu Ala Val Leu

270

Lei	ı Leı	ı Tr <u>ı</u>	9. Gly 20		Pro	Trp	Thr	His		/ Arg	y Arg	,Ser	Asn 30		Arg
Val	l Ile	Thr		Glu	. Asn	Trp	Arg		ı Lev	Leu	ı Glu	Gly 45		Trp	) Met
Ile	Glu 50		· Tyr	Ala	Pro	Trp 55		Pro	Ala	Cys	Gln 60		Leu	Gln	Pro
Glu 65		Glu	Ser	Phe	Ala 70	Glu	Trp	Gly	Glu	Asp 75		Glu	Val	Asn	Ile 80
Ala	Lys	Val	Asp	Val 85	Thr	Glu	Gln	Pro	Gly 90		Ser	Gly	Arg	Phe 95	Ile
Ile	Thr	Ala	Leu 100	Pro	Thr	Ile	Tyr	His 105	Cys	Lys	Asp	Gly	Glu 110	Phe	Arg
Arg	Tyr	Gln 115	Gly	Pro	Arg	Thr	Lys 120	Lys	Asp	Phe	Ile	Asn 125	Phe	Ile	Ser
Asp	Lys 130	Glu	Trp	Lys	Ser	Ile 135	Glu	Pro	Val	Ser	Ser 140	Trp	Phe	Gly	Pro
Gly 145	Ser	Val	Leu	Met	Ser 150	Ser	Met	Ser	Ala	Leu 155	Phe	Gln	Leu	Ser	Met 160
Trp	Ile	Arg	Thr	Cys 165	His	Asn	Tyr	Phe	Ile 170	Glu	Asp	Leu	Gly	Leu 175	Pro
Val	Trp	Gly	Ser 180	Tyr	Thr	Val	Phe	Ala 185	Leu	Ala	Thr	Leu	Phe 190	Ser	Gly
Leu	Leu	Leu 195	Gly	Leu	Суѕ	Met	Ile 200	Phe	Val	Ala	Asp	Cys 205	Leu	Cys	Pro
	210		Arg			215					22,0				
Leu 225	Ser	Glu	Ser	Ala	Gln 230	Pro	Leu	Lys	Lys	Val 235	Glu	Glu	Glu	Gln	Glu 240
Ala	Asp	Glu	Glu	Asp 245	Val	Ser	Glu		Glu 250	Ala	Glu	Ser		Glu 255	Gly
Thr	Asn	Lys	Asp	Phe	Pro	Gln	Asn	Ala	lle	Arg	Gln	Arg	Ser	Leu	Gly

<210> 127

275

Pro Ser Leu Ala Thr Asp Lys Ser Xaa

<211> 215

<212> PRT

<213> Homo sapiens

```
<220>
```

<221> SITE

<222> (83)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (141)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 127

Met Tyr Gly Lys Ser Ser Thr Arg Ala Val Leu Leu Leu Gly Ile 1 5 10 15

Gln Leu Thr Ala Leu Trp Pro Ile Ala Ala Val Glu Ile Tyr Thr Ser 20 25 30

Arg Val Leu Glu Ala Val Asn Gly Thr Asp Ala Arg Leu Lys Cys Thr 35 40 45

Phe Ser Ser Phe Ala Pro Val Gly Asp Ala Leu Thr Val Thr Trp Asn 50 55 60

Phe Arg Pro Leu Asp Gly Gly Pro Glu Gln Phe Val Phe Tyr Tyr His 65 70 75 80

Ile Asp Xaa Phe Gln Pro Met Ser Gly Arg Phe Lys Asp Arg Val Ser 85 90 95

Trp Asp Gly Asn Pro Glu Arg Tyr Asp Ala Ser Ile Leu Leu Trp Lys
100 105 110

Leu Gln Phe Asp Asp Asn Gly Thr Tyr Thr Cys Gln Val Lys Asn Pro 115 120 125

Pro Asp Val Asp Gly Val Ile Gly Asp Ile Arg Leu Xaa Val Val His 130 135 140

Thr Val Arg Phe Ser Glu Ile His Phe Leu Ala Leu Ala Ile Gly Ser 145 150 155 160

Ala Cys Ala Leu Met Ile Ile Ile Val Ile Val Val Val Leu Phe Gln 165 170 175

His Tyr Arg Lys Lys Arg Trp Ala Glu Arg Ala His Lys Val Val Glu 180 185 190

Ile Lys Ser Lys Glu Glu Glu Arg Leu Asn Gln Glu Lys Lys Val Ser . 195 200 205

Val Tyr Leu Glu Asp Thr Asp 210 215

<210> 128

<211> 295

<212> PRT

```
74
 <220>
 <221> SITE
 <222> (188)
 <223> Xaa equals any of the naturally occurring L-amino acids
 <220>
 <221> SITE
 <222> (211)
 <223> Xaa equals any of the naturally occurring L-amino acids
 <220>
 <221> SITE
 <222> (295)
 <223> Xaa equals stop translation
 <400> 128
 Met Pro Arg Gly Asp Ser Glu Gln Val Arg Tyr Cys Ala Arg Phe Ser
 Tyr Leu Trp Leu Lys Phe Ser Leu Ile Ile Tyr Ser Thr Val Phe Trp
              20
                                  25
Leu Ile Gly Ala Leu Val Leu Ser Val Gly Ile Tyr Ala Glu Val Glu
                              40
Arg Gln Lys Tyr Lys Thr Leu Glu Ser Ala Phe Leu Ala Pro Ala Ile
                                              60
Ile Leu Ile Leu Leu Gly Val Val Met Phe Met Val Ser Phe Ile Gly
 65
                                          75
Val Leu Ala Ser Leu Arg Asp Asn Leu Tyr Leu Leu Gln Ala Phe Met
                 85
                                      90
Tyr Ile Leu Gly Ile Cys Leu Ile Met Glu Leu Ile Gly Gly Val Val
            100
                                 105
Ala Leu Thr Phe Arg Asn Gln Thr Ile Asp Phe Leu Asn Asp Asn Ile
                            120
Arg Arg Gly Ile Glu Asn Tyr Tyr Asp Asp Leu Asp Phe Lys Asn Ile
                      . 135
                                             140
Met Asp Phe Val Gln Lys Lys Phe Lys Cys Cys Gly Gly Glu Asp Tyr
                    150
Arg Asp Trp Ser Lys Asn Gln Tyr His Asp Cys Ser Ala Pro Gly Pro
                165 .
                                    170
Leu Ala Cys Gly Val Pro Tyr Thr Cys Cys Ile Xaa Asn Thr Thr Glu
            180
Val Val Asn Thr Met Cys Gly Tyr Lys Thr Ile Asp Lys Glu Arg Phe
```

Ile Trp Phe Met Asp Asn Tyr Thr Ile Met Ala Gly Ile Leu Leu Gly

Ser Val Xaa Asp Val Ile Tyr Val Arg Gly Cys Thr Asn Ala Val Ile.

220

Ile Leu Leu Pro Gln Phe Leu Gly Val Leu Leu Thr Leu Leu Tyr Ile 245 250 255

Thr Arg Val Glu Asp Ile Ile Met Glu His Ser Val Thr Asp Gly Leu 260 265 270

Leu Gly Pro Gly Ala Lys Pro Ser Val Glu Ala Ala Gly Thr Gly Cys 275 280 285

Cys Leu Cys Tyr Pro Asn Xaa 290 295

<210> 129

<211> 43

<212> PRT

<213> Homo sapiens

<220>

Ōĵ

ļ=£

L.

Uī

Ų

NJ

<u>ļ</u>.

<221> SITE

<222> (43)

<223> Xaa equals stop translation

<400> 129

Met Tyr Asn Lys Leu Leu Leu Thr Val Val Thr Leu Phe Cys Tyr Gln
1 5 10 15

Ile Val Asp Phe Ile Tyr Ser Asn Tyr Ile Phe Ile Ser Ile Asn His
20 25 30

Pro Pro His Pro Pro Asn Ile Leu Val Phe Xaa 35 40

<210> 130

<211> 73

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (73)

<223> Xaa equals stop translation

<400> 130

Met Gly Asn Phe Thr Ser Tyr Leu Phe Leu Phe Ala Phe Ser Gly Ile 1 5 10 15

Ile Leu Ala Phe Ile Lys Asn Gly Leu Ala Ala Glu Ile Val Leu Ile 20 25 30

Leu Ser Glu Ala Gly Cys Ser Gln Asp Lys Ser Lys Met Val Tyr Leu 35 40 45

Ser Pro Gly Glu Gly Lys Leu Ile Lys Ile Ser Tyr Phe Cys Leu Val 50 55 60

Trp Phe Cys Phe Phe Leu Leu Xaa 65 70

<210> 131

<211> 427

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (427)

<223> Xaa equals stop translation

<400> 131

Met Ile Val Phe Gly Trp Ala Val Phe Leu Ala Ser Arg Ser Leu Gly 1 5 10 15

Gln Gly Leu Leu Thr Leu Glu Glu His Ile Ala His Phe Leu Gly
20 25 30

Thr Gly Gly Ala Ala Thr Thr Met Gly Asn Ser Cys Ile Cys Arg Asp 35 40 45

Asp Ser Gly Thr Asp Asp Ser Val Asp Thr Gln Gln Gln Gln Ala Glu 50 55 60

Asn Ser Ala Val Pro Thr Ala Asp Thr Arg Ser Gln Pro Arg Asp Pro 65 70 75 80

Val Arg Pro Pro Arg Arg Gly Arg Gly Pro His Glu Pro Arg Arg Lys 85 90 95

Lys Gln Asn Val Asp Gly Leu Val Leu Asp Thr Leu Ala Val Ile Arg 100 105 110

Thr Leu Val Asp Asn Asp Gln Glu Pro Tyr Ser Met Ile Thr Leu His 115 120 125

Glu Met Ala Glu Thr Asp Glu Gly Trp Leu Asp Val Val Gln Ser Leu 130 135 140

Ile Arg Val Ile Pro Leu Glu Asp Pro Leu Gly Pro Ala Val Ile Thr 145 150 155 160

Leu Leu Asp Glu Cys Pro Leu Pro Thr Lys Asp Ala Leu Gln Lys 165 170 175

Leu Thr Glu Ile Leu Asn Leu Asn Gly Glu Val Ala Cys Gln Asp Ser 180 185 190

Ser His Pro Ala Lys His Arg Asn Thr Ser Ala Val Leu Gly Cys Leu 195 200 205

Ala Glu Lys Leu Ala Gly Pro Ala Ser Ile Gly Leu Leu Ser Pro Gly 210 215 220

Ile Leu Glu Tyr Leu Leu Gln Cys Leu Lys Leu Gln Ser His Pro Thr 225 230 235 240 Val Met Leu Phe Ala Leu Ile Ala Leu Glu Lys Phe Ala Gln Thr Ser 245 250 255

Glu Asn Lys Leu Thr Ile Ser Glu Ser Ser Ile Ser Asp Arg Leu Val 260 265 270

Thr Leu Glu Ser Trp Ala Asn Asp Pro Asp Tyr Leu Lys Arg Gln Val 275 280 285

Gly Phe Cys Ala Gln Trp Ser Leu Asp Asn Leu Phe Leu Lys Glu Gly 290 295 300

Arg Gln Leu Thr Tyr Glu Lys Val Asn Leu Ser Ser Ile Arg Ala Met 305 310 315 320

Leu Asn Ser Asn Asp Val Ser Glu Tyr Leu Lys Ile Ser Pro His Gly 325 330 335

Leu Glu Ala Arg Cys Asp Ala Ser Ser Phe Glu Ser Val Arg Cys Thr 340 345 350

Phe Cys Val Asp Ala Gly Val Trp Tyr Tyr Glu Val Thr Val Val Thr 355 360 365

Ser Gly Val Met Gln Ile Gly Trp Val Thr Arg Asp Ser Lys Phe Leu 370 375 380

Asn His Glu Gly Tyr Gly Ile Gly Asp Asp Glu Tyr Ser Cys Ala Tyr 385 390 395 400

Asp Gly Cys Arg Gln Leu Ile Trp Tyr Asn Ala Arg Ser Ser Leu Thr 405. 410 415

Tyr Thr His Ala Gly Lys Lys Glu Ile Gln Xaa 420 425

<210> 132

<211> 323

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (323)

<223> Xaa equals stop translation

<400> .132

Met Pro Pro Arg Gly Pro Ala Ser Glu Leu Leu Leu Leu Arg Leu Leu 1 5 10 15

Leu Leu Gly Ala Ala Thr Ala Ala Pro Leu Ala Pro Arg Pro Ser Lys 20 25 30

Glu Glu Leu Thr Arg Cys Leu Ala Glu Val Val Thr Glu Val Leu Thr 35 40 45

Val Gly Gln Val Gln Arg Gly Pro Cys Thr Ala Leu Leu His Lys Glu

Leu	Cys	Gly	Thr	Glu	Pro	His	Gly	Cys	Ala	Ser	Thr	Glu	Glu	Lys	Gly
65		• •			70					75					80
	•														

Leu Leu Cly Asp Phe Lys Lys Gln Glu Ala Gly Lys Met Arg Ser 85 90 95

Ser Gln Glu Val Arg Asp Glu Glu Glu Glu Glu Val Ala Glu Arg Thr 100 105 110

His Lys Ser Glu Val Gln Glu Gln Ala Ile Arg Met Gln Gly His Arg 115 120 125

Gln Leu His Gln Glu Glu Asp Glu Glu Glu Glu Lys Glu Glu Arg Lys 130 135 140

Arg Gly Pro Met Glu Thr Phe Glu Asp Leu Trp Gln Arg His Leu Glu 145 150 155 160

Asn Gly Gly Asp Leu Gln Lys Arg Val Ala Glu Lys Ala Ser Asp Lys 165 170 175

Glu Thr Ala Gln Phe Gln Ala Glu Glu Lys Gly Val Arg Val Leu Gly
180 185 190

Gly Asp Arg Ser Leu Trp Gln Gly Ala Glu Arg Gly Gly Glu Arg 195 200 205

Arg Glu Asp Leu Pro His His His His His His Gln Pro Glu Ala 210 215 220

Glu Pro Arg Gln Glu Lys Glu Glu Ala Ser Glu Arg Glu Val Ser Arg 225 230 235 240

Gly Met Lys Glu Glu His Gln His Ser Leu Glu Ala Gly Leu Met Met 245 250 255

Val Ser Gly Val Thr Thr His Ser His Arg Cys Trp Pro Cys Thr Thr 260 265 270

Arg Ser Ile Thr Ser Gly Ser Gln Trp Pro Arg Leu Thr Pro Arg Leu 275 280 285

Ala Asn Asn Phe Arg Ala Arg Pro Leu Pro Tyr Thr Ser Thr Leu Leu 290 295 300

Tyr Gly Leu Gln Gln Pro Arg Trp His His Cys Thr Glu Ala Ser His 305 . 310 315 320

His His Xaa

<sup>&</sup>lt;210> 133

<sup>&</sup>lt;211> 56

<sup>&</sup>lt;212> PRT

<sup>&</sup>lt;213> Homo sapiens

```
79
 <220>
 <221> SITE
 <222> (56)
 <223> Xaa equals stop translation
 Met Leu Phe Leu Arg Ser Ile Leu Trp Leu Ser Ser Leu Phe Phe Cys
His Phe Val Pro Thr Ser His Ser Leu Gly Phe Gln Asn Ile Thr Ser
                                  25
Val Tyr Asn Ala Thr Leu Gln Gln Thr Val Phe Gln His Asp Ser Lys
          35
                             40
Thr Val Thr Thr Cys Phe Thr Xaa
<210> 134
<211> 76
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (76)
<223> Xaa equals stop translation
<400> 134
Met Phe Cys Val Phe Ile Leu Thr Phe Phe Met Val Phe Asn Leu Trp
                                     10
Leu Ala Ala Thr Val Tyr His Val Tyr Gly Thr Cys Lys Lys Val Leu
                                 25
Asp Ile Gln Ile Leu Arg Asp Glu Ile Thr Phe Thr Tyr Lys Asn His
                             40
Phe Tyr Cys Gly Leu Thr Ala Leu Ser Ser Arg Ile Leu Asn Asp Ile
Thr Asn Ile Leu His Val Ile Cys Ser Phe Glu Xaa
                     70
<210> 135
<211> 335
<212> PRT
<213> Homo sapiens
<400> 135
Met Met Ala Arg Gln Lys Gly Ile Phe Tyr Leu Thr Leu Phe Leu Ile
                                    10 .
```

Val Gln Leu Ser Pro Ala Ile Pro Val Phe Ala Ala Met Leu Phe Leu

Leu Gly Thr Cys Thr Leu Phe Phe Ala Phe Glu Cys Arg Tyr Leu Ala

25

30

		35					40					45			
Phe	e Ser 50	,	Ala	1 Thr	Leu	Leu 55		Thr	Ser	Phe	Ser 60		Pro	Gly	Val
Ile 65		Arg	Ala	ı Leu	Pro 70	Asp	Glu	Ala	Ala	Phe 75		Glu	Met	Glu	Ile 80
Glı	ı Ala	Thr	Asn	6ly 85	Ala	Val	Pro	Gln	Gly 90	Gln	Arg	Pro	Pro	Pro 95	Arg
Ile	Lys	Asn	Phe 100		Ile	Asn	Asn	Gln 105		Val	Lys	Leu	Lys 110		Суѕ
Туг	Thr	Cys 115	Lys	Ile	Phe		Pro 120	Pro	Arg	Ala	Ser	His 125	Cys	Ser	Ile
Суз	130		Cys	Val	Glu	Arg 135	Phe	Asp	His	His	Cys 140	Pro	Trp	Val	Gly
Asn 145		Val	Gly	Lys	Arg 150	Asn	Tyr	Arg	Tyr	Phe 155	Tyr	Leu	Phe	Ile	Leu 160
Ser	Leu	Ser	Leu	Leu 165	Thr	Iĺe	Tyr	Val	Phe 170	Ala	Phe	Asn	Ile	Val 175	Tyr
Val	Ala	Leu	Lys 180	Ser	Leu	Lys	Ile	Gly 185	Phe	Leu	Glu	Thr	Leu 190	Lys	Glu
Thr	Pro	Gly 195	Thr	Val	Leu	Glu	Val 200	Leu	Ile	Cys	Phe	Phe 205	Thr	Leu	Trp
Ser	Val 210	.Val	Gly	Leu	Thr	Gly 215		His	Thr	Phe	Leu 220	Val	Ala	Leu	Asn
31n 225	Thr	Thr	Asn	Glu	Asp 230	Ile	Lys	Gly	Ser	Trp 235	Thr	Gly	Lys	Asn	Arg 240
/al	Gln	Asn	Pro	Tyr 245	Ser	His	Gly		Ile 250		Lys	Asn	Cys	Суs 255	Glu
/al	Leu	Cys	Gly 260	Pro	Leu	Pro	Pro	Ser 265	Val	Leu	Asp	Arg	Arg 270	Gly	Ile
Jeu	Pro	Leu 275	Glu	Glu	Ser	Gly	Ser 280	Arg	Pro	Pro	Ser	Thr 285	Gln	Glu	Thr
Ser	Ser 29.0	Ser	Leu 	Leu	Pro	Gln 295	Ser	Pro	Ala		Thr 300	Glu	His	Leu	Asn
Ser 105	Asn	Glu	Met	Pro	Glu 310	Asp	Ser	Ser	Thr	Pro 315	Glu	Glu	Met		Pro 320
ro	Glu	Pro	Pro	Glu 325	Pro	Pro			Ala 330		Glu	Ala		Lys 335	

```
81
 <212> PRT
 <213> Homo sapiens
 <220>
<221> SITE -
 <222> (66)
 <223> Xaa equals stop translation
<400> 136
Met Phe His Cys Trp Ser Leu Phe Leu Tyr Tyr Phe Ser Leu Ser Leu
Ser Ser Tyr His Arg Lys Cys Ile Leu Leu Arg Met Lys Ile Lys Glu
Gln Ser Arg Asp Val Pro Cys Gln Gly Ala Gln Gln Ser His Pro Lys
                              40
Phe His Leu Asp His His Leu Pro Asp Tyr Pro His Thr Asn Leu Leu
     50
                          55
                                              60
Pro Xaa
 65
<210> 137
<211> 63
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (63)
<223> Xaa equals stop translation
<400> 137
Met Ala Val Arg Cys Ile Leu Ala Gly Gly Cys Leu Pro Ala Val Arg
                                      10
Gly Thr Phe Ser Val Leu Leu Lys Gly Met Tyr Lys Pro Met Gly Asp
                                 25
Leu Ile Ser Cys Val Phe Arg Cys Val Ala Gly Gly Leu Gly Trp Gly
Gly Gly Ala Ser Glu Gln Cys Val Glu Ser Leu Val Val Thr Xaa
                         55 -
<210> 138
<211> 379
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (379)
```

<223> Xaa equals stop translation

<400> 138 Met Ser Lys Glu Pro Leu Ile Leu Trp Leu Met Ile Glu Phe Trp Trp Leu Tyr Leu Thr Pro Val Thr Ser Glu Thr Val Val Thr Glu Val Leu Gly His Arg Val Thr Leu Pro Cys Leu Tyr Ser Ser Trp Ser His Asn 40 Ser Asn Ser Met Cys Trp Gly Lys Asp Gln Cys Pro Tyr Ser Gly Cys Lys Glu Ala Leu Ile Arg Thr Asp Gly Met Arg Val Thr Ser Arg Lys Ser Ala Lys Tyr Arg Leu Gln Gly Thr Ile Pro Arg Gly Asp Val Ser 90 Leu Thr Ile Leu Asn Pro Ser Glu Ser Asp Ser Gly Val Tyr Cys Cys Arg Ile Glu Val Pro Gly Trp Phe Asn Asp Val Lys Ile Asn Val Arg 120 Leu Asn Leu Gln Arg Ala Ser Thr Thr Thr His Arg Thr Ala Thr Thr 130 135 Thr Thr Arg Arg Thr Thr Thr Ser Pro Thr Thr Arg Gln Met 150 155 Thr Thr Thr Pro Ala Ala Leu Pro Thr Thr Val Val Thr Thr Pro Asp 165 170 Leu Thr Thr Gly Thr Pro Leu Gln Met Thr Thr Ile Ala Val Phe Thr Thr Ala Asn Thr Cys Leu Ser Leu Thr Pro Ser Thr Leu Pro Glu Glu 200 Ala Thr Gly Leu Leu Thr Pro Glu Pro Ser Lys Glu Gly Pro Ile Leu 210 215 Thr Ala Glu Ser Glu Thr Val Leu Pro Ser Asp Ser Trp Ser Ser Ala 230 235 Glu Ser Thr Ser Ala Asp Thr Val Leu Leu Thr Ser Lys Glu Ser Lys 245 250 Val Trp Asp Leu Pro Ser Thr Ser His Val Ser Met Trp Lys Thr Ser Asp Ser Val Ser Ser Pro Gln Pro Gly Ala Ser Asp Thr Ala Val Pro 280 Glu Gln Asn Lys Thr Thr Lys Thr Gly Gln Met Asp Gly Ile Pro Met 290 295 300 Ser Met Lys Asn Glu Met Pro Ile Ser Gln Leu Leu Met Ile Ile Ala

Pro Ser Leu Gly Phe Val Leu Phe Ala Leu Phe Val Ala Phe Leu Leu 325 330 335

Arg Gly Lys Leu Met Glu Thr Tyr Cys Ser Gln Lys His Thr Arg Leu 340 345 350

Asp Tyr Ile Gly Asp Ser Lys Asn Val Leu Asn Asp Val Gln His Gly 355 360 365

Arg Glu Asp Glu Asp Gly Leu Phe Thr Leu Xaa 370 375

<210> 139

<211> 47

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (47)

<223> Xaa equals stop translation

<400> 139

Met Ile His Arg Ala Arg Ser Leu Ala Ala Leu Ser Ser Leu Met Leu 1 5 10 15

Tyr Thr Lys Leu Val Gln Pro Val Ala Cys Ile Ser His Val Ala Gln 20 25 . 30

Asp Gly Phe Glu Tyr Gly Pro Thr Gln Ile His Lys Leu Ser Xaa 35 40 45

<210> 140

<211> 206

<212> PRT ·

<213> Homo sapiens

<220>

<221> SITE

<222> (206)

<223> Xaa equals stop translation

<400> 140

Met Lys Thr Gly Leu Val Leu Val Leu Gly His Val Ser Phe Ile 1 5 10 - 15

Thr Ala Ala Leu Phe His Gly Thr Val Leu Arg Tyr Val Gly Thr Pro 20 25 30

Gln Asp Ala Val Ala Leu Gln Tyr Cys Val Val Asn Ile Leu Ser Val 35 40 45

Thr Ser Ala Ile Val Val Ile Thr Ser Gly Ile Ala Ala Ile Val Leu 50 55 60

ļ==

84 Ser Arg Tyr Leu Pro Ser Thr Pro Leu Arg Trp Thr Val Phe Ser Ser 75 80 70 Ser Val Ala Cys Ala Leu Leu Ser Leu Thr Cys Ala Leu Gly Leu Leu 85 90 Ala Ser Ile Ala Met Thr Phe Ala Thr Gln Gly Lys Ala Leu Leu Ala .105 Ala Cys Thr Phe Gly Ser Ser Glu Leu Leu Ala Leu Ala Pro Asp Cys 115 120 Pro Phe Asp Pro Thr Arg Ile Tyr Ser Ser Ser Leu Cys Leu Trp Gly 135 .130 Ile Ala Leu Val Leu Cys Val Ala Glu Asn Val Phe Ala Val Arg Cys 150 155 Ala Gln Leu Thr His Gln Leu Leu Glu Leu Arg Pro Trp Trp Gly Lys 170 Ser Ser His His Met Met Arg Glu Asn Pro Glu Leu Val Glu Gly Arg Asp Leu Leu Ser Cys Thr Ser Ser Glu Pro Leu Thr Leu Xaa 200 <210> 141 <211> 221 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (221) <223> Xaa equals stop translation <400> 141 Met Pro Pro Arg Arg Pro Trp Asp Arg Glu Ala Gly Thr Leu Gln Val 10 Leu Gly Ala Leu Ala Val Leu Trp Leu Gly Ser Val Ala Leu Ile Cys Leu Leu Trp Gln Val Pro Arg Pro Pro Thr Trp Gly Gln Val Gln Pro 40 Lys Asp Val Pro Arg Ser Trp Glu His Gly Phe Gln Pro Ser Leu Gly 55 Ala Pro Gly Ser Arg Gly Pro Gly Ser Arg Gly Thr Pro Ala Ser Leu 70 Ser Leu Trp Lys Ala Ser Pro Arg Thr Cys His Leu Gln Pro Ala Ala 90 Pro Leu Pro Ser Leu Trp Ala Arg Pro Gly Cys Ser Cys Trp Thr Leu

105

110

Pro Arg Arg Ala Ser Thr Trp Leu His Thr Thr Gly Pro Ser Gln Gly 115 120 125

Leu Thr Ser Gly Ser Thr Thr Arg Leu Pro Ser Trp Glu Arg Leu Phe 130 135 140

Cys Arg Ser Cys Ser Ser Cys Trp Ala Gly Thr Phe Pro Trp Leu Trp 145 150 155 160

Pro Pro Ala Ala Arg His Trp Pro Gly His Pro Pro Thr Cys Arg Phe 165 170 175

Trp Leu Pro Glu Val Pro Met Tyr Asp Arg Cys Pro Trp Gly Gly Ser 180 185 190

Pro Trp Val Phe Cys Thr Pro Asn Ser Gly Leu Trp Met Asp Gly Thr
195 200 205

Tyr Thr Trp Ala Val Pro Thr Trp Thr Gly Gly Leu Xaa 210 215 220

<210> 142

<211> 60

<212> PRT

<213> Homo sapiens'

<220>

<221> SITE

<222> (60)

<223> Xaa equals stop translation

<400> 142

Met Leu Cys Ile Leu Ile Phe Lys Val His Leu Leu Phe Cys 1 5 10 15

Arg Ser Phe Ser Ala Phe Leu Asn Leu Lys Glu Arg Phe Leu Phe Leu 20 25 30

Ile Leu Val Trp Ile Phe Val Ala Phe Tyr Gly Cys Lys Tyr Ser Pro 35 40 45

Leu Ser Phe Asp Ser Phe Lys Ser Leu Gly Ser Xaa 50 55 60

<210> 143

<211> 67

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (67)

<223> Xaa equals stop translation

<400> 143

Met Leu Leu Ile Ser Ala Val Gln Val Phe Ile Leu Leu Ser Pro Ser

				_					86					4.5	
1	-			5	•				10					15	١
Phe	Tyr	Lev	Ile 20		ı Tyr	Leu	Leu	Arg 25		Gly	Gly	Thr	Gly 30		Gly
Leu	Glu	Pro		Суз	Pro	Ala	Ala 40		Trp	Gly	Gly	Trp		qaA	Gly
Туг	Leu 50	_	Leu	Gln	Tyr	Gln 55	Glu	Pro	Thr	Val	Ser 60	Leu	Asp	Asn	Trp
Gly 65	Asn	Xaa		· .	•		۲								
				-								•			
<21 <21	0> 1 1> 5 2> P	9 RT:			· .	<u>.</u> -			•		-				
<21	3> H	omo	sapi	ens											
	0> 1> S: 2> (														
			qual:	s st	op t	ransi	lațio	on							
			*						•						
	0> 14 Val		Ser	Ile 5	Phe	Phe	Ser	Leu	Pro 10	Phe	Ser	Thr	Ser	Ala 15	Туг
Thr	Leu	Ile	Ala 20	Pro	Asn	Ile	Asn	Arg 25	Arg	Asn	Glu	Ile	Gln 30	Arg	Ile
Ala	Asp	Arg 35	Ser	Trp	Pro	Thr	Trp 40	Arg	Ser	Gly	Arg	Ser 45	Arg	Thr	Glu
Leu	Asn 50	Arg	Phe	Thr	Trp	Cys 55	Pro	Asp	Gly	Xaa					
<213 <213	0> 14 1> 68 2> PF 3> Ho	ያ የጥ	sapie	ens					ų.	·				. •	
<220	)>										•				
<223	L> SI	TE													
	2> (6														
<223	3> Xa	a ed	quals	ssto	op tr	ansl	atic	n		-					
<400	)> 14	15	••												
			His	Gln 5	Lys	Leu	Trp	Arg	Leu 10	Gly	Phe	Leu	Leu	Cys 15	Phe
Asn	Leu	Val	Phe 20	Cys	Val	Leu	Gly	Arg 25	Arg	His	Pro.	Trp	Pro 30	Trp	Ala
Val	Arg	Pro	Leu	Met	Cys	Val	Tyr	Ala	Asp	Arg	Glu	Leu	Leu	Gly	Trp

Leu Leu Arg Trp Val Val Leu Leu Val Phe Ser Val Leu Lys Leu Ile 50 55 60

Phe Arg Leu Xaa 65

<210> 146

<211> 177

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (177)

<223> Xaa equals stop translation

<400> 146

Met Ala Ser Val Phe Val Cys Leu Leu Ser Gly Leu Ala Val Phe
1 5 10 15

Phe Leu Phe Pro Arg Ser Ile Asp Val Lys Tyr Ile Gly Val Lys Ser 20 25 30

Ala Tyr Val Ser Tyr Asp Val Gln Lys Arg Thr Ile Tyr Leu Asn Ile 35 40 45

Thr Asn Thr Leu Asn Ile Thr Asn Asn Tyr Tyr Ser Val Glu Val 50 55 60

Glu Asn Ile Thr Ala Gln Val Gln Phe Ser Lys Thr Val Ile Gly Lys
65 70 75 80

Ala Arg Leu Asn Asn Ile Ser Ile Ile Gly Pro Leu Asp Met Lys Gln 85 90 95

Ile Asp Tyr Thr Val Pro Thr Val Ile Ala Glu Glu Met Ser Tyr Met 100 105 110

Tyr Asp Phe Cys Thr Leu Ile Ser Ile Lys Val His Asn Ile Val Leu 115 120 125

Met Met Gln Val Thr Val Thr Thr Thr Tyr Phe Gly His Ser Glu Gln 130 135 140

Ile Ser Gln Glu Arg Tyr Gln Tyr Val Asp Cys Gly Arg Asn Thr Thr
145 150 155 160

Tyr Gln Leu Gly Gln Ser Glu Tyr Leu Asn Val Leu Gln Pro Gln Gln
165 170 175

Xaa

<210> 147

<211> 120

<212> PRT

<220><221>

<221> SITE

<222> (120)

<223> Xaa equals stop translation

<400> 147

Met Arg Arg Leu Leu Leu Val Thr Ser Leu Val Val Val Leu Leu Trp

1 5 10 15

Glu Ala Gly Ala Val Pro Ala Pro Lys Val Pro Ile Lys Met Gln Val 20 25 30

Lys His Trp Pro Ser Glu Gln Asp Pro Glu Lys Ala Trp Gly Ala Arg 35 40 45

Val Val Glu Pro Pro Glu Lys Asp Gln Leu Val Val Leu Phe Pro 50 55 60

Val Gln Lys Pro Lys Leu Leu Thr Thr Glu Glu Lys Pro Arg Gly Thr 65 70 75 80

Lys Ala Trp Met Glu Thr Glu Asp Thr Leu Gly Arg Val Leu Ser Pro 85 90 95

Glu Pro Asp His Asp Ser Leu Tyr His Pro Pro Pro Glu Glu Asp Gln
100 105 110

Gly Glu Glu Arg Pro Arg Leu Xaa 115 120

<210> 148

<211> 265

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (265)

<223> Xaa equals stop translation

<400> 148

Met Pro Phe Arg Leu Leu Ile Pro Leu Gly Leu Leu Cys Ala Leu Leu 1 5 10 15

Ala His Tyr Arg Glu Arg Val Lys Ala Met Phe Tyr His Ala Tyr Asp  $35 \hspace{1cm} 40 \hspace{1cm} 45$ 

Ser Tyr Leu Glu Asn Ala Phe Pro Phe Asp Glu Leu Arg Pro Leu Thr 50 55 60

Cys Asp Gly His Asp Thr Trp Gly Ser Phe Ser Leu Thr Leu Ile Asp 65 70 75 80

Ala Leu Asp Thr Leu Leu Ile Leu Gly Asn Val Ser Glu Phe Gln Arg

		0,5	
85		90	95

Val Val Glu Val Leu Gln Asp Ser Val Asp Phe Asp Ile Asp Val Asn
100 105 110

Ala Ser Val Phe Glu Thr Asn Ile Arg Val Val Gly Gly Leu Leu Ser 115 120 125

Ala His Leu Leu Ser Lys Lys Ala Gly Val Glu Val Glu Ala Gly Trp 130 135 140

Pro Cys Ser Gly Pro Leu Leu Arg Met Ala Glu Glu Ala Ala Arg Lys 145 150 155 160

Leu Leu Pro Ala Phe Gln Thr Pro Thr Gly Met Pro Tyr Gly Thr Val 165 170 175

Asn Leu Leu His Gly Val Asn Pro Gly Glu Thr Pro Val Thr Cys Thr 180 185 190

Ala Gly Ile Gly Thr Phe Ile Val Glu Phe Ala Thr Leu Ser Ser Leu 195 200 205

Thr Gly Asp Pro Val Phe Glu Asp Val Ala Arg Val Ala Leu Met Arg 210 215 220

Leu Trp Glu Ser Arg Ser Asp Ile Gly Leu Val Gly Asn His Ile Asp 225 230 235 240

Val Leu Thr Gly Lys Gly Trp Pro Arg Thr Gln Ala Ser Gly Leu Ala 245 250 255

Trp Thr Pro Thr Leu Ser Thr Trp Xaa 260 265

<210> 149

<211> 92

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (84)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (92)

<223> Xaa equals stop translation

<400> 149

Met Tyr Gly Lys Ser Ser Thr Arg Ala Val Leu Leu Leu Gly Ile 1 5 10 15

Gln Leu Thr Ala Leu Trp Pro Ile Ala Ala Val Glu Ile Tyr Thr Ser 20 25 30

Arg Val Leu Glu Ala Val Asn Gly Thr Asp Ala Arg Leu Lys Cys Thr

The wall than the first the small by them

<u>Ļ</u>Ł

Phe Ser Ser Phe Ala Pro Val Gly Asp Ala Leu Thr Val Thr Trp Asn 50 55 60

Phe Arg Pro Leu Asp Gly Gly Pro Glu Gln Phe Val Phe Tyr Tyr His 65 70 75 80

Ile Asp Pro Xaa Pro Thr His Glu Trp Ala Val Xaa 85 90

<210> 150

<211> 185

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (185)

<223> Xaa equals stop translation

<400> 150

Met Leu Phe Leu Phe Ser Met Ala Thr Leu Leu Arg Thr Ser Phe Ser 1 5 10 15

Asp Pro Gly Val Ile Pro Arg Ala Leu Pro Asp Glu Ala Ala Phe Ile 20 25 30

Glu Met Glu Ile Glu Ala Thr Asn Gly Ala Val Pro Gln Gly Gln Arg 35 40 45

Pro Pro Pro Arg Ile Lys Asn Phe Gln Ile Asn Asn Gln Ile Val Lys
50 55 60

Leu Lys Tyr Cys Tyr Thr Cys Lys Ile Phe Arg Pro Pro Arg Ala Ser 65 70 75 80

His Cys Ser Ile Cys Asp Asn Cys Val Glu Arg Phe Asp His His Cys
85 90 95

Pro Trp Val Gly Asn Cys Val Gly Lys Arg Asn Tyr Arg Tyr Phe Tyr
100 105 110

Leu Phe Ile Leu Ser Leu Ser Leu Leu Thr Ile Tyr Val Phe Ala Phe 115 120 125

Asn Ile Val Tyr Val Ala Leu Lys Ser Leu Lys Ile Gly Phe Leu Glu 130 135 -140

Thr Leu Lys Gly Asn Ser Trp Asn Cys Ser Arg Ser Pro His Leu Leu 145 150 155 160

Leu Tyr Thr Leu Val Arg Arg Gly Thr Asp Trp Ile.Ser Tyr Phe Pro 165 170 175

Arg Gly Ser Gln Pro Asp Asn Gln Xaa 180 185

```
<210> 151
 <211> 21
 <212> PRT
 <213> Homo sapiens
 <400> 151
 Gly Ser Phe Leu Gly Ser Thr Asn Arg Asp Arg Glu Ser Leu Ala Phe
                   5
Gln Phe Cys Ala Gly
              20
 <210> 152
 <211> 19
 <212> PRT
 <213> Homo sapiens
 <400> 152
His Glu Val Glu Glu Lys Phe Asn Ser Pro Leu Met Gln Thr Glu Gly
                                      10
Asp Ile Gln
<210> 153
<211> 423
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (193)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (215) 1
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (242)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (361)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (378)
<223> Xaa equals any of the naturally occurring L-amino acids
Ile Asn Phe Ser Glu Met Thr Leu Gln Glu Leu Val His Lys Ala Ala
```

. 315

									92	)					
	1			Ę	5				10					15	5
Se	r Cy	ѕ Ту	r Me		Arg	(Val	. Alā	val 25		s Phe	a Asp	Glu	Суs 30		n As
Gl	n Le		o Val	l Tyr	Тyr	Thr	Туг 40		s Thi	C Val	Val	Asn 45		Ala	. Se
Gli	ı Lei 50		r Asr	n Phe	. Leu	Leu 55		His	. Суз	s Asp	Phe 60	Gln	Gly	Ile	Ar
Gli 65		∍ Gl	y Leu	ı Tyr	Cys 70	Gln	Pro	Gly	, Ile	Asp 75	Leu	Pro	Ser	Trp	I1 8
Leu	ı Gly	, Il	e Leu	G1n 85		Pro	Ala	Ala	Туr 90		Pro	Ile	Glu	Pro 95	As
Ser	Pro	Pro	Ser 100		Ser	Thr	His	Phe 105	Met	Lys	Lys	Cys	Asn 110	Leu	Ĺy
Туг	Ile	Leu 115	ı Val	Glu	Lys	Lys	Gln 120	Ile	Asn	Lys	Phe	Lys 125	Ser	Phe	His
Glu	Thr 130		ı Leu	Asn	Tyr	Asp 135	Thr	Phe	Thr	Val	Glu 140	His	Asn	Asp	Le
Val 145	Leu	Phe	e Arg	Leu	His 150	Trp	Lys	Asn		Glu 155	Val	Asn	Leu	Met	Leu 160
Asn	Asp	Gly	' Lys	Glu 165	Lys	Tyr	Glu	Lys	Glu 170		Ile	Lys	Ser	Ile 175	Ser
Ser	Glu	His	Val 180	Asn	Glu	Glu	Lys	Ala 185	Glu	Glu	His	Met	Asp 190	Leu	Arg
Xaa	Lys	His 195	Суѕ	Leu	Ala	Tyr	Val 200	Leu	His	Thr	Ser	Gly 205	Thr	Thr	Gly
Ile	Pro 210	Lys	Ile	Val	Arg	Xaa 215	Pro	His	Lys	Cys	Ile 220	Val	Pro	Asn	Ile
Gln 225	His	Phe	Arg	Val	Leu 230	Phe	Asp	Ile	Thr	Gln 235	Glu	Asp	Val	Ļeu	Phe 240
Leu	Xaa	Ser	Pro	Leu 245	Thr	Phe	Asp	Pro	Ser 250	Val	Val	Glu		Phe 255	Leu
Ala	Leu	Ser	Ser 260	Gly	Ala	Ser		Leu 265	Ile	Val_	Pro '		Ser 270	Val	Lys
Leu	Leu	Pro 275	Ser	Lys	Leu i		Ser 280	Val	Leu	Phe		His :	His .	Arg	Val
Thr	Val 290	Leu	Gln	Ala		Pro ' 295	Thr :	Leu	Leu		Arg :	Phe (	Gly :	Ser	Gln
Leu	Ile	Lys	Ser	Thr '	Val I	Leu :	Ser i	Ala	Thr	Thr :	Ser 1	Leu i	Arg V	Jal :	Leu

93 Ala Leu Gly Gly Glu Ala Phe Pro Ser Leu Thr Val Leu Arg Ser Trp 330 Arg Gly Glu Gly Asn Lys Thr Gln Ile Phe Asn Val Tyr Gly Ile Thr 345 Glu Val Ser Ser Trp Ala Thr Ile Xaa Arg Ile Pro Glu Lys Thr Leu 360 Asn Ser Thr Leu Lys Cys Glu Leu Pro Xaa Gln Leu Gly Phe Pro Leu 375 Leu Gly Thr Val Val Glu Val Arg Asp Thr Asn Gly Phe Thr Ile Gln 385 390 395 Glu Gly Ser Gly Gln Val Phe Leu Gly Cys Phe Ile Phe Val Asp Trp. 410 415 Glu Phe Phe Gln Glu Lys 420 <210> 154 <211> 44 <212> PRT <213> Homo sapiens <400> 154 Ile Asn Phe Ser Glu Met Thr Leu Gln Glu Leu Val His Lys Ala Ala . 10 Ser Cys Tyr Met Asp Arg Val Ala Val Cys Phe Asp Glu Cys Asn Asn Gln Leu Pro Val Tyr Tyr Thr Tyr Lys Thr Val Val . 35 40 <210> 155 <211> 47 <212> PRT <213> Homo sapiens <400> .155

Asn Ala Ala Ser Glu Leu Ser Asn Phe Leu Leu Leu His Cys Asp Phe . 5 10

Gln Gly Ile Arg Glu Ile Gly Leu Tyr Cys Gln Pro Gly Ile Asp Leu 20

Pro Ser Trp Ile Leu Gly Ile Leu Gln Val Pro Ala Ala Tyr Val

<210> 156

<211> 46

<212> PRT

94 <400> 156 Pro Ile Glu Pro Asp Ser Pro Pro Ser Leu Ser Thr His Phe Met Lys . 5 . 10 Lys Cys Asn Leu Lys Tyr Ile Leu Val Glu Lys Lys Gln Ile Asn Lys Phe Lys Ser Phe His Glu Thr Leu Leu Asn Tyr Asp Thr Phe 40 <210> 157 <211> 47 <212> PRT <213> Homo sapiens <400> 157 Thr Val Glu His Asn Asp Leu Val Leu Phe Arg Leu His Trp Lys Asn 10 Thr Glu Val Asn Leu Met Leu Asn Asp Gly Lys Glu Lys Tyr Glu Lys Glu Lys Ile Lys Ser Ile Ser Ser Glu His Val Asn Glu Glu Lys <210> 158 <211> 46 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (9) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (31) <223> Xaa equals any of the naturally occurring L-amino acids Ala Glu Glu His Met Asp Leu Arg Xaa Lys His Cys Leu Ala Tyr Val . 10 . Leu His Thr Ser Gly Thr Thr Gly Ile Pro Lys Ile Val Arg Xaa Pro 25 His Lys Cys Ile Val Pro Asn Ile Gln His Phe Arg Val Leu . 35 40

<210> 159

<211> 48

<212> PRT

221> SITE

<222> (12)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 159

Phe Asp Ile Thr Gln Glu Asp Val Leu Phe Leu Xaa Ser Pro Leu Thr

1 5 10 15

Phe Asp Pro Ser Val Val Glu Ile Phe Leu Ala Leu Ser Ser Gly Ala

20 25 30

Ser Leu Leu Ile Val Pro Thr Ser Val Lys Leu Leu Pro Ser Lys Leu

35 40 45

<210> 160

<211> 46

<212> PRT

<213> Homo sapiens

<400> 160.

Ala Ser Val Leu Phe Ser His His Arg Val Thr Val Leu Gln Ala Thr
1 5 10 15

Pro Thr Leu Leu Arg Arg Phe Gly Ser Gln Leu Ile Lys Ser Thr Val 20 25 30

Leu Ser Ala Thr Thr Ser Leu Arg Val Leu Ala Leu Gly Gly 35 40 45

<210> 161

<211> 47

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (37)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 161

Glu Ala Phe Pro Ser Leu Thr Val Leu Arg Ser Trp Arg Gly Glu Gly
1 5 10 15

Asn Lys Thr Gln Ile Phe Asn Val Tyr Gly Ile Thr Glu Val Ser Ser 20 25 30

Trp Ala Thr Ile Xaa Arg Ile Pro Glu Lys Thr Leu Asn Ser Thr 35 40 45

<210> 162

<211> 52

<212> PRT

```
96
 <220>
 <221> SITE
 <222> (7)
 <223> Xaa equals any of the naturally occurring L-amino acids
 <400> 162
 Leu Lys Cys Glu Leu Pro Xaa Gln Leu Gly Phe Pro Leu Leu Gly Thr
                                      10
 Val Val Glu Val Arg Asp Thr Asn Gly Phe Thr Ile Gln Glu Gly Ser
              20
 Gly Gln Val Phe Leu Gly Cys Phe Ile Phe Val Asp Trp Glu Phe Phe
 Phe Gln Glu Lys
    50
<210> 163
<211> 43
<212> PRT
<213> Homo sapiens
<400> 163
Glu Ala Lys Ala Gln Phe Trp Leu Leu His Ser Tyr Leu Phe Cys His
                                     10
Ser Ser Asn Val Pro Asp Leu Leu Arg Pro Arg Met Thr Asn Asp Ser
                                 25
                                     ,
Glu Gly Lys Met Gly Phe Lys His Pro Lys Ile
         35
<210> 164
<211> 40
<212> PRT
<213> Homo sapiens
<400> 164
Gly Thr Ser Gly Asp Gly Ala Lys Met Ile Ser Gly His Leu Leu Gln
Glu Pro Thr Gly Ser Pro Val Val Ser Glu Glu Pro Leu Asp Leu Leu
             20
                                 25
Pro Thr Leu Asp Leu Arg Gln Glu
<210> 165
```

<220>

<221> SITE

<213> Homo sapiens

<211> 396 <212> PRT

```
97
  <222> (6)
 <223> Xaa equals any of the naturally occurring L-amino acids
  <220>
  <221> SITE
 <222> (56)
 <223> Xaa equals any of the naturally occurring L-amino acids
 <220>
 <221> SITE
 <222> (67)
 <223> Xaa equals any of the naturally occurring L-amino acids
 <220>
 <221> SITE
 <222> (113)
 <223> Xaa equals any of the naturally occurring L-amino acids
 <220>
 <221> SITE
 <222> (130)
 <223> Xaa equals any of the naturally occurring L-amino acids
 <220>
 <221> SITE
 <222> (137)
 <223> Xaa equals any of the naturally occurring L-amino acids
<220>
 <221> SITE
 <222> (139)
 <223> Xaa equals any of the naturally occurring L-amino acids
· <220>
<221> SITE
<222> (211)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (222)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
.<221> SITE
<222> (224)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (227)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (280)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 165
```

98 Leu Thr Thr Glu Glu Xaa Cys Met Leu Gly Ser Ala Leu Cys Pro Phe Gln Gly Asn Phe Thr Ile Ile Leu Tyr Gly Arg Ala Asp Glu Gly Ile Gln Pro Asp Pro Tyr Tyr Gly Leu Lys Tyr Ile Gly Val Gly Lys Gly 40 Gly Ala Leu Glu Leu His Gly Xaa Lys Lys Leu Ser Trp Thr Phe Leu 55 Asn Lys Xaa Leu His Pro Gly Gly Met Ala Glu Gly Gly Tyr Phe Phe Glu Arg Ser Trp Gly His Arg Gly Val Ile Val His Val Ile Asp Pro 85 90 Lys Ser Gly Thr Val Ile His Ser Asp Arg Phe Asp Thr Tyr Arg Ser 100 Xaa Lys Glu Ser Glu Arg Leu Val Gln Tyr Leu Asn Ala Val Pro Asp 120 Gly Xaa Ile Leu Ser Val Ala Val Xaa Asp Xaa Gly Ser Arg Asn Leu 135 Asp Asp Met Ala Arg Lys Ala Met Thr Lys Leu Gly Ser Lys His Phe 150 . 155 Leu His Leu Gly Phe Arg His Pro Trp Ser Phe Leu Thr Val Lys Gly 165 170 Asn Pro Ser Ser Val Glu Asp His Ile Glu Tyr His Gly His Arg 185 190 Gly Ser Ala Ala Ala Arg Val Phe Lys Leu Phe Gln Thr Glu His Gly 200 Glu Tyr Xaa Asn Val Ser Leu Ser Ser Glu Trp Val Gln Xaa Val Xaa 215 Trp Thr Xaa Trp Phe Asp His Asp Lys Val Ser Gln Thr Lys Gly Gly 225 230 Glu Lys Ile Ser Asp Leu Trp Lys Ala His Pro Gly Lys Ile Cys Asn 250 Arg Pro Ile Asp Ile Gln Ala Thr Thr Met Asp Gly Val Asn Leu Ser 265 Thr Glu Val Val Tyr Lys Lys Xaa Gln Asp Tyr Arg Phe Ala Cys Tyr Asp Arg Gly Arg Ala Cys Arg Ser Tyr Arg Val Arg Phe Leu Cys Gly 295 Lys Pro Val Arg Pro Lys Leu Thr Val Thr Ile Asp Thr Asn Val Asn 305 310 315

Ser Thr Ile Leu Asn Leu Glu Asp Asn Val Gln Ser Trp Lys Pro Gly 325 330 335

Asp Thr Leu Val Ile Ala Ser Thr Asp Tyr Ser Met Tyr Gln Ala Glu 340 345 350

Glu Phe Gln Val Leu Pro Cys Arg Ser Cys Ala Pro Asn Gln Val Lys 355 360 365

Val Ala Gly Lys Pro Met Tyr Leu His Ile Gly Gly Arg Arg Gly Arg 370 380

Glu Ser Arg Val Asp Glu Leu Thr Ser Arg Arg Pro 385 390 395

<210> 166

<211> 44

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (6)

<223> Xaa equals any of the naturally occurring L-amino acids

<400>. 166

Leu Thr Thr Glu Glu Xaa Cys Met Leu Gly Ser Ala Leu Cys Pro Phe 1 5 10 15

Gln Gly Asn Phe Thr Ile Ile Leu Tyr Gly Arg Ala Asp Glu Gly Ile 20 25 30

Gln Pro Asp Pro Tyr Tyr Gly Leu Lys Tyr Ile Gly
35 40

<210> 167

<211> 42

<212> PRT

. <213> Homo sapiens

<220>

<221> SITE

<222> (12)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (23)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 167

Val Gly Lys Gly Gly Ala Leu Glu Leu His Gly Xaa Lys Lys Leu Ser

1 5 10 15

Trp Thr Phe Leu Asn Lys Xaa Leu His Pro Gly Gly Met Ala Glu Gly
20 25 30

```
Gly Tyr Phe Phe Glu Arg Ser Trp Gly His 35 40
```

```
<210> 168
```

<211> 46

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (27)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (44)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 168

Arg Gly Val Ile Val His Val Ile Asp Pro Lys Ser Gly Thr Val Ile
1 5 10 15

His Ser Asp Arg Phe Asp Thr Tyr Arg Ser Xaa Lys Glu Ser Glu Arg 20 25 30

Leu Val Gln Tyr Leu Asn Ala Val Pro Asp Gly Xaa Ile Leu 35 40 45

<210> 169

<211> 41

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (5)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (7)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 169

Ser Val Ala Val Xaa Asp Xaa Gly Ser Arg Asn Leu Asp Asp Met Ala 1 5 10 - 15

Arg Lys Ala Met Thr Lys Leu Gly Ser Lys His Phe Leu His Leu Gly
20 25 30

Phe Arg His Pro Trp Ser Phe Leu Thr 35

<210> 170

<211> 44

```
101
 <212> PRT
 <213> Homo sapiens
 <220>
 <221> SITE
 <222> (38)
 <223> Xaa equals any of the naturally occurring L-amino acids
 <400> 170
 Val Lys Gly Asn Pro Ser Ser Ser Val Glu Asp His Ile Glu Tyr His
                                      10
 Gly His Arg Gly Ser Ala Ala Ala Arg Val Phe Lys Leu Phe Gln Thr
              20
 Glu His Gly Glu Tyr Xaa Asn Val Ser Leu Ser Ser
                              40
 <210> 171
 <211> 43
 <212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (5)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (7)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (10)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 171
Glu Trp Val Gln Xaa Val Xaa Trp Thr Xaa Trp Phe Asp His Asp Lys
Val Ser Gln Thr Lys Gly Glu Lys Ile Ser Asp Leu Trp Lys Ala
His Pro Gly Lys Ile Cys Asn Arg Pro Ile Asp
         35
<210> 172
<211> 43
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (20)
<223> Xaa equals any of the naturally occurring L-amino acids
```

<400> 172

Tyr Lys Lys Xaa Gln Asp Tyr Arg Phe Ala Cys Tyr Asp Arg Gly Arg
20 25 30

Ala Cys Arg Ser Tyr Arg Val Arg Phe Leu Cys 35 40

<210> 173

<211> 45

<212> PRT

<213> Homo sapiens

<400> 173

Gly Lys Pro Val Arg Pro Lys Leu Thr Val Thr Ile Asp Thr Asn Val 1 5 10 15

Asn Ser Thr Ile Leu Asn Leu Glu Asp Asn Val Gln Ser Trp Lys Pro
20 25 30

Gly Asp Thr Leu Val Ile Ala Ser Thr Asp Tyr Ser Met 35 40 45

<210> 174

<211> 48

<212> PRT

<213> Homo sapiens

<400> 174

Tyr Gln Ala Glu Glu Phe Gln Val Leu Pro Cys Arg Ser Cys Ala Pro

1 5 10 15

Asn Gln Val Lys Val Ala Gly Lys Pro Met Tyr Leu His Ile Gly Gly
20 25 30

Arg Arg Gly Arg Glu Ser Arg Val Asp Glu Leu Thr Ser Arg Arg Pro
35 40 45

<210> 175

<211> 24

<212> PRT

<213> Homo sapiens

<400> 175

Gly Thr Arg Asn Gly Trp Val Phe Phe Lys Gln Leu Leu Pro Gln His
1 5 10 15

Phe Asp Ile Arg Tyr Ala Asn Leu

```
<210> 176
 <211> 39
 <212> PRT
 <213> Homo sapiens
 <400> 176
 Gly Glu Val Glu Ala Gly Gln Gly Lys Arg Arg Val Ser Leu Gly Glu
                   5
 Ser Thr Leu Gly Pro Pro Cys Arg Gly Thr Pro Ser Thr Leu Arg Pro
                                  25
Ala Ala Gln Gln Ala Arg Arg
         35
<210> 177
<211> 25
<212> PRT
<213> Homo sapiens
<400> 177
Gln Ser Lys Thr Pro Asp Pro Val Ser Lys Lys Phe Pro Ser Ser
Gln Gly Val Val Glu Ala Glu Ser Val
             20
<210> 178
<211> 348
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (309)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (341)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 178
Cys Phe Cys Phe Leu Leu Pro Leu Pro Ser Arg Trp Glu Pro Ser
Arg Arg Glu Gly Gly Glu Met Ile Ala Glu Leu Val Ser Ser Ala
Leu Gly Leu Ala Leu Tyr Leu Asn Thr Leu Ser Ala Asp Phe Cys Tyr
                             40
Asp Asp Ser Arg Ala Ile Lys Thr Asn Gln Asp Leu Leu Pro Glu Thr
     50
                         55
```

Pro Trp Thr His Ile Phe Tyr Asn Asp Phe Trp Gly Thr Leu Leu Thr

6	5				70	)				75	5				80
His	s Se	r Gl	y Se:	r His		s Sei	r Tyi	r Arg	g Pro		ı Cys	Thr	Lėu	Ser 95	Phe
Arg	g Let	ı Ası	n His		a Ile	e Gly	/ Gly	/ Let 105		n Pro	Trp	Ser	туr 110		Leu
Va]	Asr	1 Va:		ı Leu	ı His	s Alā	120		Thi	Gly	/ Leu	Phe 125		Ser	Phe
Ser	130		e Leu	ı Leu	ı Gly	135		туг	Trp	Thr	Phe 140		Ala	Gly	Leu
Met 145	Ph∈	Ala	. Ser	His	Pro 150		His	Thr	Glu	Ala 155		Ala	Gly	Ile	Val 160
Gly	Arg	Ala	Asp	Val 165		Ala	Ser	Leu	Phe 170		Leu	Leu	Ser	Leu 175	Leu
Суѕ	Tyr	Ile	Lys 180	His	Cys	Ser	Thr	Arg 185	Gly	Tyr	Ser	Ala	Arg 190	Thr	Trp
Gly	Trp	Phe 195		Gly	Ser	Gly	Leu 200	Cys	Ala	Gly	Cys	Ser 205	Met	Leu	Trp
Lys	Glu 210	Gln	Gly	Val	Thr	Val 215	Leu	Ala	Val	Ser	Ala 220	Val	Tyr	Asp	Val
Phe 225	Val	Phe	His	Arg	Leu 230		Ile	Lys	Gln	Ile 235	Leu	Pro	Thr	Ile	Туr 240
Lys	Arg	Lys	Asn	Leu 245	Ser	Leu	Phe	Leu	Ser 250	Ile	Ser	Leu	Leu	Ile 255	Phe
Trp	Gly	Ser	Ser 260	Leu	Leu	Gly	Ala	Arg 265	Leu	Туr	Trp	Met	Gly 270	Asn	Lys
Pro	Pro	Ser 275	Phe	Ser	Asn	Ser	Asp. 280	Asn	Pro	Ala	Ala	Asp 285	Ser	Asp	Ser
Leu	Leu 290	Thr	Arg	Thr	Leu	Thr 295	Phe	Phe	Tyr	Leu	Pro 300	Thr	ГÀЗ	Asn	Leu
Trp 305	Leu	Leu	Leu	Xaa	Pro 310	Asp	Thr	Leu	Ser	Phe 315	Glu	Trp	Ser		Asp 320
Ala	Val	Pro	Leu	Leu	Lys	Thr	Val	Cys	qaA	Trp	Arg	Asn	Leu :	His	Thr

Val Gly Leu Leu Xaa Trp Asp Ser Phe Ser Leu Ala

335

<210> 179

<211> 43

<212> PRT

<213> Homo sapiens

<400> 179

Cys Phe Cys Phe Leu Leu Pro Leu Leu Pro Ser Arg Trp Glu Pro Ser 1 5 10 15

Arg Arg Glu Gly Gly Glu Met Ile Ala Glu Leu Val Ser Ser Ala 20 25 30

Leu Gly Leu Ala Leu Tyr Leu Asn Thr Leu Ser 35 40

<210> 180

<211> 44

<212> PRT

<213> Homo sapiens

<400> 180

Ala Asp Phe Cys Tyr Asp Asp Ser Arg Ala Ile Lys Thr Asn Gln Asp 1 5 10 15

Leu Leu Pro Glu Thr Pro Trp Thr His Ile Phe Tyr Asn Asp Phe Trp 20 25 30

Gly Thr Leu Leu Thr His Ser Gly Ser His Lys Ser 35 40

<210> 181

<211> 43

<212> PRT

<213> Homo sapiens

<400> 181

Tyr Arg Pro Leu Cys Thr Leu Ser Phe Arg Leu Asn His Ala Ile Gly
1 5 10 15

Gly Leu Asn Pro Trp Ser Tyr His Leu Val Asn Val Leu Leu His Ala
20 25 30

Ala Val Thr Gly Leu Phe Thr Ser Phe Ser Lys 35 40

<210> 182

<211> 44

<212> PRT

<213> Homo sapiens

<400> 182

Ile Leu Leu Gly Asp Gly Tyr Trp Thr Phe Met Ala Gly Leu Met Phe
1 5 10 15

Ala Ser His Pro Ile His Thr Glu Ala Val Ala Gly Ile Val Gly Arg
20 25 30

Ala Asp Val Gly Ala Ser Leu Phe Phe Leu Leu Ser 35 40

```
106
 <210> 183
 <211> 43
 <212> PRT
 <213> Homo sapiens
<400> 183
 Leu Leu Cys Tyr Ile Lys His Cys Ser Thr Arg Gly Tyr Ser Ala Arg
                                      10
 Thr Trp Gly Trp Phe Leu Gly Ser Gly Leu Cys Ala Gly Cys Ser Met
                                 25
 Leu Trp Lys Glu Gln Gly Val Thr Val Leu Ala
          35
 <210> 184
 <211> 47
 <212> PRT
 <213> Homo sapiens
 <400> 184
Val Ser Ala Val Tyr Asp Val Phe Val Phe His Arg Leu Lys Ile Lys
Gln Ile Leu Pro Thr Ile Tyr Lys Arg Lys Asn Leu Ser Leu Phe Leu
                              . 25
Ser Ile Ser Leu Leu Ile Phe Trp Gly Ser Ser Leu Leu Gly Ala
                              40
<210> 185
<211> 43
<212> PRT
<213> Homo sapiens
<400> 185
Arg Leu Tyr Trp Met Gly Asn Lys Pro Pro Ser Phe Ser Asn Ser Asp
Asn Pro Ala Ala Asp Ser Asp Ser Leu Leu Thr Arg Thr Leu Thr Phe
Phe Tyr Leu Pro Thr Lys Asn Leu Trp Leu Leu
       35
<210> 186
<211> 41
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (2)
<223> Xaa equals any of the naturally occurring L-amino acids
```

<220>

```
107
 <221> SITE
 <222> (34)
 <223> Xaa equals any of the naturally occurring L-amino acids
 <400> 186
 Leu Xaa Pro Asp Thr Leu Ser Phe Glu Trp Ser Met Asp Ala Val Pro
                                      10
 Leu Leu Lys Thr Val Cys Asp Trp Arg Asn Leu His Thr Val Gly Leu
              20
 Leu Xaa Trp Asp Ser Phe Ser Leu Ala
          35
<210> 187
<211> 24
<212> PRT
<213> Homo sapiens
<400> 187
His Asn Val Phe Lys Val Tyr Ser Cys Cys Ser Lys Val Arg Asn Cys
Phe Ser Phe Lys Glu Lys Val Ser
             20
<210> 188
<211> 11
<212> PRT
<213> Homo sapiens
<400> 188
Asn Cys Met His Gly Lys Ile Thr Pro Phe Gln
<210> 189
<211> 40
<212> PRT
<213> Homo sapiens
<400> 189 -
Glu Gln Ile Pro Lys Lys Val Gln Lys Ser Leu Gln Glu Thr Ile Gln
  1
                 5
Ser Leu Lys Leu Thr Asn Gln Glu Leu Leu Arg Lys Gly Ser Ser Asn
           2,0
Asn Gln Asp Val Val Ser Cys Asp
         35
```

<210> 190

<211> 219

<212> PRT

Leu Pro Ala Ser Gln Gln Ala Cys Ala Lys Leu Tyr Ser Tyr Ser Leu 100 105 110

Gln Gly Tyr Ser Trp Leu Gly Glu Thr Leu Pro Leu Trp Gly Ser His 115 120 125

Leu Leu Thr Val Val Arg Pro Ser Leu Gln Leu Ala Trp Ala His Thr 130 135 140

Asn Ala Thr Val Ser Phe Leu Ser Ala His Cys Ala Ser His Leu Ala 145 150 155 160

Trp Phe Gly Asp Ser Leu Thr Ser Leu Ser Gln Arg Leu Gln Ile Gln. 165 170. 175

Leu Pro Asp Ser Val Asn Gln Leu Leu Arg Tyr Leu Arg Glu Leu Pro 180 185 190

Leu Leu Phe His Gln Asn Val Leu Leu Pro Leu Trp His Leu Leu Leu 195 200 205

Glu Ala Leu Ala Trp Ala Gln Gly Ala Leu Pro 210 215

<210> 191

<211> 23

<212> PRT

<213> Homo sapiens

<400> 191

Gly Thr Ser Phe Cys Ser His Leu Pro Ser Gln Arg Pro Leu His Leu 1 5 10 . 15

Ser Gly Ser Ser Cys Leu Val

20

<210> 192

<211> 69

<212> PRT

<213> Homo sapiens

<400> 192

Gly Thr Ser Phe Cys Ser His Leu Pro Ser Gln Arg Pro Leu His Leu

1 5 10 15

Ser Gly Ser Ser Cys Leu Val Met Val Trp Phe Ile Tyr Phe Val Leu 20 25 30

Gln Gly Leu Phe Cys Pro Lys Asn Glu Gly Ala Ser Pro Gly Leu Gln
35 40 45

Phe Pro Thr Leu Ser Leu Ala Gly His Ala Ser Pro Ala Leu Val Pro 50 55 60

His Gly Met Gly Gly 65

<210> 193

<211> 58

<212> PRT

<213> Homo sapiens

<400> 193

Phe Cys Ile Gln Val Pro Gly Phe Val Ser Cys Trp Tyr Ala Ser Pro 1 5 10 15

Asp Arg Pro Ser Cys Ile His Val Thr Arg Leu Tyr Leu Leu Gly Leu 20 25 30

Ser Gln Ile Leu Ala Ser Tyr Ser Ser Ser Cys Pro Asn Ser Ile Leu 35 40 45

Ser Leu Arg Asn Gly Gly Lys Ile Leu Arg
50 55

<210> 194

<211> 100

<212> PRT

<213> Homo sapiens

<400> 194

Phe Cys Ile Gln Val Pro Gly Phe Val Ser Cys Trp Tyr Ala Ser Pro 1 5 10 15

Asp Arg Pro Ser Cys Ile His Val Thr Arg Leu Tyr Leu Leu Gly Leu 20 25 30

Ser Gln Ile Leu Ala Ser Tyr Ser Ser Ser Cys Pro Asn Ser Ile Leu 35 40 45

Ser Leu Arg Asn Gly Gly Lys Ile Leu Arg Met Phe Leu Val Phe Trp 50 60

Leu Leu Gly Ile Tyr Phe Cys His Leu Leu Val Ile Thr Val Leu Thr 65 70 75 80

Lys Trp Ile Leu Ala Pro Pro Tyr Leu Met Ala Gln Thr Thr Pro 85 90 95

Gln Ser Leu Tyr 100

<210> 195

<211> 40

<212> PRT

<213> Homo sapiens

<400> 195

Pro Arg Val Arg Ser Ala Ala Arg Leu Pro Arg Thr Leu Arg Pro Ser 1 5 10 15

Arg Thr Ser Ala Pro Ala Gly Pro Cys Val Pro Arg Leu Ala Pro Leu 20 25 30

Thr Pro Ser Arg Pro Gly Arg Ala 35 40

<210> 196

<211> 251

<212> PRT

<213> Homo sapiens

<400> 196

Pro Arg Val Arg Ser Ala Ala Arg Leu Pro Arg Thr Leu Arg Pro Ser 1 5 10 15

Arg Thr Ser Ala Pro Ala Gly Pro Cys Val Pro Arg Leu Ala Pro Leu 20 25 30

Thr Pro Ser Arg Pro Gly Arg Ala Met Ile Ser Leu Pro Gly Pro Leu 35 40 45

Val Thr Asn Leu Leu Arg Phe Leu Phe Leu Gly Leu Ser Ala Leu Asp 50 55 60

Val Ile Arg Gly Ser Leu Ser Leu Thr Asn Leu Ser Ser Met Ala 65 70 75 80

Gly Val Tyr Val Cys Lys Ala His Asn Glu Val Gly Thr Ala Gln Cys 85 90 95

Asn Val Thr Leu Glu Val Ser Thr Gly Pro Gly Ala Ala Val Val Ala 100 105 110

Gly Ala Val Val Gly Thr Leu Val Gly Leu Gly Leu Leu Ala Gly Leu 115 120 125

Val Leu Leu Tyr His Arg Arg Gly Lys Ala Leu Glu Glu Pro Ala Asn 130 135 140

Asp Ile Lys Glu Asp Ala Ile Ala Pro Arg Thr Leu Pro Trp Pro Lys 145 150 155 160 Ser Ser Asp Thr Ile Ser Lys Asn Gly Thr Leu Ser Ser Val Thr Ser 165 170 175

Ala Arg Ala Leu Arg Pro Pro His Gly Pro Pro Arg Pro Gly Ala Leu 180 185 190

Thr Pro Thr Pro Ser Leu Ser Ser Gln Ala Leu Pro Ser Pro Arg Leu 195 200 205

Pro Thr Thr Asp Gly Ala His Pro Gln Pro Ile Ser Pro Ile Pro Gly 210 215 220

Gly Val Ser Ser Ser Gly Leu Ser Arg Met Gly Ala Val Pro Val Met 225 230 235 240

Val Pro Ala Gln Ser Gln Ala Gly Ser Leu Val 245 250

<210> 197

<211> 460

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (236)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (324)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 197

Ser Val Leu Trp Gly Gly Ser Lys Gly Pro Trp Ser Trp Pro Arg Pro 1 5 10 15

Arg His Arg Glu Arg Leu Asp Phe Leu Ser Leu Cys Ala Glu Trp Leu 20 25 30

Arg Trp Arg Pro Leu Ser Leu Thr Gln Gln Leu Lys His Thr Ile Ser 35 40 45

Gly Ser Asn Trp Leu Pro His Pro Leu Pro Cys Pro Leu Gly Ser Ala
50 55 60

Glu Asn Asn Gly Asn Ala Asn Ile Leu Ile Ala Ala Asn Gly Thr Lys
65 70 75 80

Arg Lys Ala Ile Ala Ala Glu Asp Pro Ser Leu Asp Phe Arg Asn Asn 85 90 95

Pro Thr Lys Glu Asp Leu Gly Lys Leu Gln Pro Leu Val Ala Ser Tyr 100 105 110

Leu Cys Ser Asp Val Thr Ser Val Pro Ser Lys Glu Ser Leu Lys Leu 115 120 125 Gln Gly Val Phe Ser Lys Gln Thr Val Leu Lys Ser His Pro Leu Leu 130 135 140

Ser Gln Ser Tyr Glu Leu Arg Ala Glu Leu Leu Gly Arg Gln Pro Val 145 '150 155 160

Leu Glu Phe Ser Leu Glu Asn Leu Arg Thr Met Asn Thr Ser Gly Gln
165 170 175

Thr Ala Leu Pro Gln Ala Pro Val Asn Gly Leu Ala Lys Lys Leu Thr 180 185 190

Lys Ser Ser Thr His Ser Asp His Asp Asn Ser Thr Ser Leu Asn Gly
195 200 205

Gly Lys Arg Ala Leu Thr Ser Ser Ala Leu His Gly Gly Glu Met Gly 210 215 220

Gly Ser Glu Ser Gly Asp Leu Lys Gly Gly Met Xaa Asn Cys Thr Leu 225 230 235 240

Pro His Arg Ser Leu Asp Val Glu His Thr Ile Leu Tyr Ser Asn Asn 245 250 255

Ser Thr Ala Asn Lys Ser Ser Val Asn Ser Met Glu Gln Pro Ala Leu 260 265 270

Gln Gly Ser Ser Arg Leu Ser Pro Gly Thr Asp Ser Ser Ser Asn Leu 275 280 285

Gly Gly Val Lys Leu Glu Gly Lys Lys Ser Pro Leu Ser Ser Ile Leu 290 295 300

Phe Ser Ala Leu Asp Ser Asp Thr Arg Ile Thr Ala Leu Leu Arg Arg 305 310 315 320

Gln Ala Asp Xaa Glu Ser Arg Ala Arg Arg Leu Gln Lys Arg Leu Gln 325 330 335

Val Val Gln Ala Lys Gln Val Glu Arg His Ile Gln His Gln Leu Gly 340 345 350

Gly Phe Leu Glu Lys Thr Leu Ser Lys Leu Pro Asn Leu Glu Ser Leu 355 360 365

Arg Pro Arg Ser Gln Leu Met Leu Thr Arg Lys Ala Glu Ala Ala Leu 370 380

Arg Lys Ala Ala Ser Glu Thr Thr Thr Ser Glu Gly Leu Ser Asn Phe 385 390 395 400

Leu Lys Ser Asn Ser Ile Ser Glu Glu Leu Glu Arg Phe Thr Ala Ser 405 410 415

Gly Ile Ala Asn Leu Arg Cys Ser Glu Gln Ala Phe Asp Ser Asp Val 420 425 430

Thr Asp Ser Ser Ser Gly Gly Glu Ser Asp Ile Glu Glu Glu Leu

Thr Arg Ala Asp Pro Glu Gln Arg His Val Pro Leu 450 455 460

<210> 198

<211> 43

<212> PRT

<213> Homo sapiens

<400> 198

Ser Val Leu Trp Gly Gly Ser Lys Gly Pro Trp Ser Trp Pro Arg Pro 1 5 10 15

Arg His Arg Glu Arg Leu Asp Phe Leu Ser Leu Cys Ala Glu Trp Leu 20 25 30

Arg Trp Arg Pro Leu Ser Leu Thr Gln Gln Leu 35 40

<210> 199

<211> 45

<212> PRT

<213> Homo sapiens

<400> 199

Lys His Thr Ile Ser Gly Ser Asn Trp Leu Pro His Pro Leu Pro Cys

5 10 15

Pro Leu Gly Ser Ala Glu Asn Asn Gly Asn Ala Asn Ile Leu Ile Ala 20 25 30

Ala Asn Gly Thr Lys Arg Lys Ala Ile Ala Ala Glu Asp 35 40 45

<210> 200

<211> 45

<212> PRT

<213> Homo sapiens

<400> 200

Pro Ser Leu Asp Phe Arg Asn Asn Pro Thr Lys Glu Asp Leu Gly Lys
1 5 10 15

Leu Gln Pro Leu Val Ala Ser Tyr Leu Cys Ser Asp Val Thr Ser Val 20 25 30

Pro Ser Lys Glu Ser Leu Lys Leu Gln Gly Val Phe Ser 35 40 45

<210> 201

<211> 46

<212> PRT

<213> Homo sapiens

69 65. CH

<u>L</u>a

114 <400> 201 Lys Gln Thr Val Leu Lys Ser His Pro Leu Leu Ser Gln Ser Tyr Glu 15 Leu Arg Ala Glu Leu Leu Gly Arg Gln Pro Val Leu Glu Phe Ser Leu Glu Asn Leu Arg Thr Met Asn Thr Ser Gly Gln Thr Ala Leu 40 <210> 202 <211> 44 <212> PRT <213> Homo sapiens <400> 202 Pro Gln Ala Pro Val Asn Gly Leu Ala Lys Lys Leu Thr Lys Ser Ser 10 Thr His Ser Asp His Asp Asn Ser Thr Ser Leu Asn Gly Gly Lys Arg 20 25 Ala Leu Thr Ser Ser Ala Leu His Gly Gly Glu Met <210> 203 <211> 45 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (13) <223> Xaa equals any of the naturally occurring L-amino acids Gly Gly Ser Glu Ser Gly Asp Leu Lys Gly Gly Met Xaa Asn Cys Thr Leu Pro His Arg Ser Leu Asp Val Glu His Thr Ile Leu Tyr Ser Asn 20 Asn Ser Thr Ala Asn Lys Ser Ser Val Asn Ser Met Glu 35 <210>.204

<210> .204 <211> 47

<212> PRT

<213> Homo sapiens

<400> 204

Gln Pro Ala Leu Gln Gly Ser Ser Arg Leu Ser Pro Gly Thr Asp Ser 1 5 10 15

Ser Ser Asn Leu Gly Gly Val Lys Leu Glu Gly Lys Lys Ser Pro Leu 20 25 30

Ser Ser Ile Leu Phe Ser Ala Leu Asp Ser Asp Thr Arg Ile Thr 35 40 45

<210> 205.

<211> 47

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (9)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 205

Ala Leu Leu Arg Arg Gln Ala Asp Xaa Glu Ser Arg Ala Arg Arg Leu
1 5 10 15

Gln Lys Arg Leu Gln Val Val Gln Ala Lys Gln Val Glu Arg His Ile 20 25 30

Gln His Gln Leu Gly Gly Phe Leu Glu Lys Thr Leu Ser Lys Leu
35 40 45

<210> 206

<211> 47

<212> PRT

<213> Homo sapiens

<400> 206

Pro Asn Leu Glu Ser Leu Arg Pro Arg Ser Gln Leu Met Leu Thr Arg

1 10 15

Lys Ala Glu Ala Ala Leu Arg Lys Ala Ala Ser Glu Thr Thr Thr Ser 20 25 30

Glu Gly Leu Ser Asn Phe Leu Lys Ser Asn Ser Ile Ser Glu Glu
35 40 45

<210> 207

<211> 51

<212> PRT

<213> Homo sapiens

<400> 207

Leu Glu Arg Phe Thr Ala Ser Gly Ile Ala Asn Leu Arg Cys Ser Glu

1 5 10 15

Gln Ala Phe Asp Ser Asp Val Thr Asp Ser Ser Ser Gly Gly Glu Ser 20 25 30

Asp Ile Glu Glu Glu Leu Thr Arg Ala Asp Pro Glu Gln Arg His
35 40 45

Val Pro Leu

50

<210> 208 <211> 86 <212> PRT

<213> Homo sapiens

<400> 208

Asn Asn Cys Gly Thr Val Ser Ser Arg Val Phe Ser Phe Trp Arg Gln 1 5 10 15

Phe Arg Gln Gln Pro Gln Val Val Leu Leu Leu Lys Ile Tyr Met Phe 20 25 30

Leu Lys Val Leu Val Phe Leu Ile Phe Phe Ser Pro Phe Ser Ser Ser 35 40 45

Leu Phe Ser Gly Glu Ala Val Arg Gly Arg Gly Ala Gly Leu Gly Leu 50 55 60

Gly Ile Gly Arg Gly Trp Thr Ser Cys Leu Ser Val Leu Asn Gly Cys
65 70 75 80

Asp Gly Ala Arg Ser His

<210> 209 <211> 16 <212> PRT

<213> Homo sapiens

<400> 209

Ala Lys Val Val Ser Trp Pro Ser Gln Glu Thr Cys Gly Ile Arg Thr 1 5 10 15

<210> 210

<211> 72

<212> PRT

<213> Homo sapiens

<400> 210

Ala Lys Val Val Ser Trp Pro Ser Gln Glu Thr Cys Gly Ile Arg Thr
1 5 10 15

Met Lys Ala Met Leu Gln Cys Phe Arg Phe Tyr Phe Met Arg Leu Phe 20 . 25 30

Val Phe Leu Leu Thr Ser Gly Lys Met Ile Asp Ser Asp Ser Thr Met
35 40 45

Gln Gly Cys Trp Tyr Gln Pro Glu Pro Tyr Arg Trp Gln Ser Leu Glu 50 55 60

Lys Trp Ser Gln Lys Met Glu Leu

<210> 211

<211> 26 <212> PRT

<213> Homo sapiens

<400> 211

Leu Pro Ser Gly Thr Phe Leu Lys Arg Ser Phe Arg Ser Leu Pro Glu

1 5 10 15

Leu Lys Asp Ala Val Leu Asp Gln Tyr Ser 20 25

<210> 212

<211> 298

<212> PRT

<213> Homo sapiens

<400> 212

Leu Pro Ser Gly Thr Phe Leu Lys Arg Ser Phe Arg Ser Leu Pro Glu

5 10 15

Leu Lys Asp Ala Val Leu Asp Gln Tyr Ser Met Trp Gly Asn Lys Phe 20 25 30

Gly Val Leu Leu Phe Leu Tyr Ser Val Leu Leu Thr Lys Gly Ile Glu 35 40 45

Asn Ile Lys Asn Glu Ile Glu Asp Ala Ser Glu Pro Leu Ile Asp Pro 50 55 60

Val Tyr Gly His Gly Ser Gln Ser Leu Ile Asn Leu Leu Thr Gly 65 70 75 80

His Ala Val Ser Asn Val Trp Asp Gly Asp Arg Glu Cys Ser Gly Met 85 90 95

Lys Leu Leu Gly Ile His Glu Gln Ala Ala Val Gly Phe Leu Thr Leu 100 105 110

Met Glu Ala Leu Arg Tyr Cys Lys Val Gly Ser Tyr Leu Lys Ser Pro 115 120 125

Lys Phe Pro Ile Trp Ile Val Gly Ser Glu Thr His Leu Thr Val Phe 130 135 140

Phe Ala Lys Asp Met Ala Leu Val Ala Pro Glu Ala Pro Ser Glu Gln 145 150 155 160

Ala Arg Arg Val Phe Gln Thr Tyr Asp Pro Glu Asp Asn Gly Phe Ile 165 170 175

Pro Asp Ser Leu Leu Glu Asp Val Met Lys Ala Leu Asp Leu Val Ser 180 185 190

Asp Pro Glu Tyr Ile Asn Leu Met Lys Asn Lys Leu Asp Pro Glu Gly

118 195 200 205

Leu Gly Ile Ile Leu Leu Gly Pro Phe Leu Gln Glu Phe Phe Pro Asp 210 215 220

Gln Gly Ser Ser Gly Pro Glu Ser Phe Thr Val Tyr His Tyr Asn Gly 225 230 235 240

Leu Lys Gln Ser Asn Tyr Asn Glu Lys Val Met Tyr Val Glu Gly Thr
245 250 255

Ala Val Val Met Gly Phe Glu Asp Pro Met Leu Gln Thr Asp Asp Thr 260 265 270

Pro Ile Lys Arg Cys Leu Gln Thr Lys Trp Pro Tyr Ile Glu Leu Leu 275 280 285

Trp Thr Thr Asp Arg Ser Pro Ser Leu Asn 290 295

<210> 213

<211> 21

<212> PRT

<213> Homo sapiens

<400> 213

Gly Thr Arg Arg Ala Glu Val Gly Ala Ala Thr Ala Leu Pro Val Arg

1 5 10 15

Trp Ala Ser Gly Glu 20

<210> 214

<211> 301

<212> PRT

<213> Homo sapiens

<400> 214

Gly Thr Arg Arg Ala Glu Val Gly Ala Ala Thr Ala Leu Pro Val Arg
1 5 10 15

Trp Ala Ser Gly Glu Met Ala Pro Ser Gly Ser Leu Ala Val Pro Leu 20 25 30

Ala Val Leu Val Leu Leu Trp Gly Ala Pro Trp Thr His Gly Arg
35 40 45

Arg Ser Asn Val Arg Val Ile Thr Asp Glu Asn Trp Arg Glu Leu Leu 50 55 60

Glu Gly Asp Trp Met Ile Glu Phe Tyr Ala Pro Trp Cys Pro Ala Cys
65 70 75 80

Gln Asn Leu Gln Pro Glu Trp Glu Ser Phe Ala Glu Trp Gly Glu Asp 85 90 95

Leu Glu Val Asn Ile Ala Lys Val Asp Val Thr Glu Gln Pro Gly Leu

119 100 105

110

Ile Asn Phe Ile Ser Asp Lys Glu Trp Lys Ser Ile Glu Pro Val Ser 145 150 155 160

Ser Trp Phe Gly Pro Gly Ser Val Leu Met Ser Ser Met Ser Ala Leu
165 170 175

Phe Gln Leu Ser Met Trp Ile Arg Thr Cys His Asn Tyr Phe Ile Glu 180 185 190

Asp Leu Gly Leu Pro Val Trp Gly Ser Tyr Thr Val Phe Ala Leu Ala 195 200 205

Thr Leu Phe Ser Gly Leu Leu Gly Leu Cys Met Ile Phe Val Ala 210 215 220

Asp Cys Leu Cys Pro Ser Lys Arg Arg Pro Gln Pro Tyr Pro Tyr 225 230 235 240

Pro Ser Lys Lys Leu Leu Ser Glu Ser Ala Gln Pro Leu Lys Lys Val 245 250 255

Glu Glu Glu Glu Ala Asp Glu Glu Asp Val Ser Glu Glu Ala 260 265 270

Glu Ser Lys Glu Gly Thr Asn Lys Asp Phe Pro Gln Asn Ala Ile Arg 275 280 285

Gln Arg Ser Leu Gly Pro Ser Leu Ala Thr Asp Lys Ser 290 295 300

<210> 215

<211> 48

<212> PRT

<213> Homo sapiens

<400> 215

Val Thr Gly Thr Gly Glu Glu Leu Asn Ser Asn Ser Ser Leu Trp Glu

1 10 15

Asn Ala Val Leu Ala Pro Pro Gly Val Ala Leu Ala Gly Cys Trp Ser 20 25 30

Pro Arg Ser Ala Pro Ser Gly Leu Trp Gly Gln Gly Trp Val Ser Leu 35 40 45

```
<211> 28
```

<212> PRT

<213> Homo sapiens

<400> 216

Ser Asn Ser Ser Leu Trp Glu Asn Ala Val Leu Ala Pro Pro Gly Val

1 5 10 15

Ala Leu Ala Gly Cys Trp Ser Pro Arg Ser Ala Pro 20 25

<210> 217

<211> 134

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (56)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 217 .

Ile Pro Phe Gln Pro Met Ser Gly Arg Phe Lys Asp Arg Val Ser Trp

1 5 10 15

Asp Gly Asn Pro Glu Arg Tyr Asp Ala Ser Ile Leu Leu Trp Lys Leu 20 25 30

Gln Phe Asp Asp Asn Gly Thr Tyr Thr Cys Gln Val Lys Asn Pro Pro 35 40 45

Asp Val Asp Gly Val Ile Gly Xaa Ile Arg Leu Ser Val Val His Thr
50 55 60

Val Arg Phe Ser Glu Ile His Phe Leu Ala Leu Ala Ile Gly Ser Ala 65 70 75 80

Cys Ala Leu Met Ile Ile Ile Val Ile Val Val Leu Phe Gln His
85 90 95

Tyr Arg Lys Lys Arg Trp Ala Glu Arg Ala His Lys Val Val Glu Ile 100 105 110

Lys Ser Lys Glu Glu Glu Arg Leu Asn Gln Glu Lys Lys Val Ser Val 115 120 125

Tyr Leu Glu Asp Thr Asp 130

<210> 218

<211> 29

<212> PRT

<213> Homo sapiens

<400> 218

Arg Val Ser Trp Asp Gly Asn Pro Glu Arg Tyr Asp Ala Ser Ile Leu

1 5 10 15

Leu Trp Lys Leu Gln Phe Asp Asp Asn Gly Thr Tyr Thr 20 25

```
<210> 219
```

<211> 24

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (9)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 219

Pro Asp Val Asp Gly Val Ile Gly Xaa Ile Arg Leu Ser Val Val His 1 5 10 15

Thr Val Arg Phe Ser Glu Ile His 20

<210> 220

<211> 28

<212> PRT

<213> Homo sapiens

<400> 220

Met Ile Ile Val Ile Val Val Val Leu Phe Gln His Tyr Arg Lys

1 10 15

Lys Arg Trp Ala Glu Arg Ala His Lys Val Val Glu 20 25

<210> 221

<211> 91

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (84)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 221

Met Tyr Gly Lys Ser Ser Thr Arg Ala Val Leu Leu Leu Leu Gly Ile

1 5 10 - 15

Gln Leu Thr Ala Leu Trp Pro Ile Ala Ala Val Glu Ile Tyr Thr Ser 20 25 30

Arg Val Leu Glu Ala Val Asn Gly Thr Asp Ala Arg Leu Lys Cys Thr 35 40 45

Phe Ser Ser Phe Ala Pro Val Gly Asp Ala Leu Thr Val Thr Trp Asn 50 55 60

<u>L</u>

122

Phe Arg Pro Leu Asp Gly Gly Pro Glu Gln Phe Val Phe Tyr Tyr His 65 70 75 80

Ile Asp Pro Xaa Pro Thr His Glu Trp Ala Val 85 90

<210> 222

<211> 250

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (118)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (176)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 222

Gly Thr Arg Asn Ala Val Leu Ala Pro Pro Gly Val Ala Leu Ala Gly
1 5 10 15

Cys Trp Ser Pro Arg Ser Ala Pro Ser Gly Leu Trp Gly Gln Gly Trp
20 25 30

Leu Gly Ile Gln Leu Thr Ala Leu Trp Pro Ile Ala Ala Val Glu Ile 50 55 60

Tyr Thr Ser Arg Val Leu Glu Ala Val Asn Gly Thr Asp Ala Arg Leu 65 70 75 80

Lys Cys Thr Phe Ser Ser Phe Ala Pro Val Gly Asp Ala Leu Thr Val 85 90 95

Thr Trp Asn Phe Arg Pro Leu Asp Gly Gly Pro Glu Gln Phe Val Phe
100 105 110

Tyr Tyr His Ile Asp Xaa Phe Gln Pro Met Ser Gly Arg Phe Lys Asp 115 120 125

Arg Val Ser Trp Asp Gly Asn Pro Glu Arg Tyr Asp Ala Ser Ile Leu 130 135 - 140

Leu Trp Lys Leu Gln Phe Asp Asp Asn Gly Thr Tyr Thr Cys Gln Val 145 150 155 160

Lys Asn Pro Pro Asp Val Asp Gly Val Ile Gly Asp Ile Arg Leu Xaa 165 170 175

Val Val His Thr Val Arg Phe Ser Glu Ile His Phe Leu Ala Leu Ala 180 185 . 190

<u>|</u>|-|-

123

Ile Gly Ser Ala Cys Ala Leu Met Ile Ile Ile Val Ile Val Val Val 195 200 205

Leu Phe Glń His Tyr Arg Lys Lys Arg Trp Ala Glu Arg Ala His Lys 210 225

Val Val Glu Ile Lys Ser Lys Glu Glu Glu Arg Leu Asn Gln Glu Lys 225 230 235 240

Lys Val Ser Val Tyr Leu Glu Asp Thr Asp 245 250

<210> 223 -

<211> 7

<212> PRT

<213> Homo sapiens

<400> 223

Pro Ala Arg Gly Ala Pro Arg
1 5

<210> 224

<211> 6

<212> PRT

<213> Homo sapiens

<400> 224

Ala Arg Val Tyr Phe Lys

<210> 225

<211> 7

<212> PRT

<213> Homo sapiens

<400> 225

Thr Lys Leu Phe His Asp Lys

<210> 226

<211> 161

<212> PRT

<213> Homo sapiens

<400> 226

Pro His Ile His Pro Cys Trp Lys Glu Gly Asp Thr Val Gly Phe Leu

1 5 10 15

Leu Asp Leu Asn Glu Lys Gln Met Ile Phe Phe Leu Asn Gly Asn Gln 20 25 30

Leu Pro Pro Glu Lys Gln Val Phe Ser Ser Thr Val Ser Gly Phe Phe 35 40 . 45

Ala Ala Ser Phe Met Ser Tyr Gln Gln Cys Glu Phe Asn Phe Gly

124 50 55 60 Ala Lys Pro Phe Lys Tyr Pro Pro Ser Met Lys Phe Ser Thr Phe Asn 70 75 Asp Tyr Ala Phe Leu Thr Ala Glu Glu Lys Ile Ile Leu Pro Arg His Arg Arg Leu Ala Leu Leu Lys Gln Val Ser Ile Arg Glu Asn Cys Cys 100 105 Ser Leu Cys Cys Asp Glu Val Ala Asp Thr Gln Leu Lys Pro Cys Gly 120 His Ser Asp Leu Cys Met Asp Cys Ala Leu Gln Leu Glu Thr Cys Pro 130 135 Leu Cys Arg Lys Glu Ile Val Ser Arg Ile Arg Gln Ile Ser His Ile 145 150 Ser <210> 227 <211> 31 <212> PRT <213> Homo sapiens <400> 227 Asn Glu Lys Gln Met Ile Phe Phe Leu Asn Gly Asn Gln Leu Pro Pro 5 10 Glu Lys Gln Val Phe Ser Ser Thr Val Ser Gly Phe Phe Ala Ala 20 <210> 228 <211> 27 <212> PRT <213> Homo sapiens <400> 228 · Ser Tyr Gln Gln Cys Glu Phe Asn Phe Gly Ala Lys Pro Phe Lys Tyr Pro Pro Ser Met Lys Phe Ser Thr Phe Asn Asp 20 <210> 229 <211> 29 <212> PRT

<213> Homo sapiens

<400> 229

Glu Glu Lys Ile Ile Leu Pro Arg His Arg Arg Leu Ala Leu Leu Lys 10

<u>ļ</u>

<210> 235 <211> 8

```
125
 Gln Val Ser Ile Arg Glu Asn Cys Cys Ser Leu Cys Cys
                                25
 <210> 230
 <211> 30
 <212> PRT
 <213> Homo sapiens
 <400> 230
 Thr Gln Leu Lys Pro Cys Gly His Ser Asp Leu Cys Met Asp Cys Ala
 Leu Gln Leu Glu Thr Cys Pro Leu Cys Arg Lys Glu Ile Val
                                25
 <210> 231
 <211> 8
 <212> PRT
<213> Homo sapiens
<400> 231
Ala Leu Glu Lys Phe Ala Gln Thr
<210> 232
<211> 6
<212> PRT
<213> Homo sapiens
<400> 232
Gly Phe Cys Ala Gln Trp
1 5
<210> 233
<211> 8
<212> PRT
<213> Homo sapiens
<400> 233
Asp Val Ser Glu Tyr Leu Lys Ile
<210> 234
<211> .7
<212> PRT
<213> Homo sapiens
<400> 234
Gly Leu Glu Ala Arg Cys Asp
```

```
126
 <212> PRT
 <213> Homo sapiens
 <400> 235
 Phe Glu Ser Val Arg Cys Thr Phe
                 5
 <210> 236
 <211> 6
 <212> PRT
 <213> Homo sapiens
<400> 236
Gly Val Trp Tyr Tyr Glu
<210> 237
<211> 8
<212> PRT
<213> Homo sapiens
<400> 237
Thr Ser Gly Val Met Gln Ile Gly
<210> 238
<211> 12
<212> PRT
<213> Homo sapiens
<400> 238
Phe Leu Asn His Glu Gly Tyr Gly Ile Gly Asp Asp
                  5
 1
                                    10
<210> 239
<211> 7
<212> PRT
<213> Homo sapiens
<400> 239
Ala Tyr Asp Gly Cys Arg Gln
<210> 240
<211> 15
<212> PRT
<213> Homo sapiens
<400> 240
His Ala Ser Ala Asp Gly Gly Arg Thr Arg Gly Trp Thr Pro Thr
                                     10
```

<211> 337

<212> PRT

<213> Homo sapiens

<400> 241

His Ala Ser Ala Asp Gly Gly Arg Thr Arg Gly Trp Thr Pro Thr Met

1 5 10 15

Pro Pro Arg Gly Pro Ala Ser Glu Leu Leu Leu Leu Arg Leu Leu Leu 20 25 30

Leu Gly Ala Ala Thr Ala Ala Pro Leu Ala Pro Arg Pro Ser Lys Glu 35 40 45

Glu Leu Thr Arg Cys Leu Ala Glu Val Val Thr Glu Val Leu Thr Val
50 55 60

Gly Gln Val Gln Arg Gly Pro Cys Thr Ala Leu Leu His Lys Glu Leu 65 70 75 80

Cys Gly Thr Glu Pro His Gly Cys Ala Ser Thr Glu Glu Lys Gly Leu 85 90 95

Leu Leu Gly Asp Phe Lys Lys Gln Glu Ala Gly Lys Met Arg Ser Ser 100 105 110

Gln Glu Val Arg Asp Glu Glu Glu Glu Val Ala Glu Arg Thr His 115 120 125

Lys Ser Glu Val Gln Glu Gln Ala Ile Arg Met Gln Gly His Arg Gln 130 135 140

Leu His Gln Glu Glu Asp Glu Glu Glu Glu Lys Glu Glu Arg Lys Arg 145 150 155 160

Gly Pro Met Glu Thr Phe Glu Asp Leu Trp Gln Arg His Leu Glu Asn
' 165 170 175

Gly Gly Asp Leu Gln Lys Arg Val Ala Glu Lys Ala Ser Asp Lys Glu 180 185 190

Thr Ala Gln Phe Gln Ala Glu Glu Lys Gly Val Arg Val Leu Gly Gly 195 200 205

Asp Arg Ser Leu Trp Gln Gly Ala Glu Arg Gly Gly Glu Arg Arg 210 215 220

Glu Asp Leu Pro His His His His His His Gln Pro Glu Ala Glu 225 230 235 240

Pro Arg Gln Glu Lys Glu Glu Ala Ser Glu Arg Glu Val Ser Arg Gly 245 250 255

Met Lys Glu Glu His Gln His Ser Leu Glu Ala Gly Leu Met Met Val 260 265 270

Ser Gly Val Thr Thr His Ser His Arg Cys Trp Pro Cys Thr Thr Arg 275 280 285

128

Ser Ile Thr Ser Gly Ser Gln Trp Pro Arg Leu Thr Pro Arg Leu Ala

Asn Asn Phe Arg Ala Arg Pro Leu Pro Tyr Thr Ser Thr Leu Leu Tyr 305 310

Gly Leu Gln Gln Pro Arg Trp His His Cys Thr Glu Ala Ser His His

His

<210> 242

<211> 23

<212> PRT

<213> Homo sapiens

<400> 242

Ala Phe Asp Glu Gly Asn Lys Met Glu Leu Arg Lys Asn Thr Ile Leu 10

Ile Ile Tyr Tyr Ile Ser Arg 20

<210> 243

<211> 78

<212> PRT

<213> Homo sapiens

<400> 243

Ala Phe Asp Glu Gly Asn Lys Met Glu Leu Arg Lys Asn Thr Ile Leu

Ile Ile Tyr Tyr Ile Ser Arg Met Leu Phe Leu Arg Ser Ile Leu Trp 25

Leu Ser Ser Leu Phe Phe Cys His Phe Val Pro Thr Ser His Ser Leu 35 40

Gly Phe Gln Asn Ile Thr Ser Val Tyr Asn Ala Thr Leu Gln Gln Thr

Val Phe Gln His Asp Ser Lys Thr Val Thr Thr Cys Phe Thr 70 75

<210> 244

<211> 25

<212> PRT

<213> Homo sapiens

<400> 244

Gly Thr Arg Trp Lys Leu Phe Gln Gln Arg Phe Leu Tyr Arg Gly Asn

Arg Glu Phe Gln Asn Lys Lys Leu Ser 20 .

<210> 245 <211> 100 <212> PRT <213> Homo sapiens <400> 245 Gly Thr Arg Trp Ly

Gly Thr Arg Trp Lys Leu Phe Gln Gln Arg Phe Leu Tyr Arg Gly Asn
1 5 10 15

Arg Glu Phe Gln Asn Lys Lys Leu Ser Met Phe Cys Val Phe Ile Leu  $20 \hspace{1cm} 25 \hspace{1cm} 30$ 

Thr Phe Phe Met Val Phe Asn Leu Trp Leu Ala Ala Thr Val Tyr His 35 40 45

Val Tyr Gly Thr Cys Lys Lys Val Leu Asp IÎe Gln Ile Leu Arg Asp 50 55 60

Glu Ile Thr Phe Thr Tyr Lys Asn His Phe Tyr Cys Gly Leu Thr Ala 65 70 75 80

Leu Ser Ser Arg Ile Leu Asn Asp Ile Thr Asn Ile Leu His Val Ile 85 90 95

Cys Ser Phe Glu 100

<210> 246 <211> 10

<212> PRT

<213> Homo sapiens

<400> 246

Gly Thr Ser Ala Ile Pro Val Phe Ala Ala 1 5 10

<210> 247

<211> 122

<212> PRT

<213> Homo sapiens

<400> 247

Leu Asp Phe Ile Leu Ser Ser Trp Leu Ser Thr Arg Gln Pro Met Lys

1 5 10 15

Asp Ile Lys Gly Ser Trp Thr Gly Lys Asn Arg Val Gln Asn Pro Tyr
20 25 30

Ser His Gly Asn Ile Val Lys Asn Cys Cys Glu Val Leu Cys Gly Pro 35 40 45

Leu Pro Pro Ser Val Leu Asp Arg Gly Ile Leu Pro Leu Glu Glu 50 55 60

Ser Gly Ser Arg Pro Pro Ser Thr Gln Glu Thr Ser Ser Ser Leu Leu

75

80

Pro Gln Ser Pro Ala Pro Thr Glu His Leu Asn Ser Asn Glu Met Pro
85 90 95

Glu Asp Ser Ser Thr Pro Glu Glu Met Pro Pro Pro Glu Pro Pro Glu
100 . 105 110

Pro Pro Gln Glu Ala Ala Glu Ala Glu Lys 115 120

<210> 248

<211> 27

<212> PRT

<213> Homo sapiens

<400> 248

Lys Gly Ser Trp Thr Gly Lys Asn Arg Val Gln Asn Pro Tyr Ser His  $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$ 

Gly.Asn Ile Val Lys Asn.Cys Cys Glu Val Leu 20 25

<210> 249

<211> 25

Ļь

<212> PRT

<213> Homo sapiens

<400> 249

Asp Arg Arg Gly Ile Leu Pro Leu Glu Glu Ser Gly Ser Arg Pro Pro 1 5 10 15

Ser Thr Gln Glu Thr Ser Ser Ser Leu 20 25

<210> 250

<211> 17

<212> PRT

<213> Homo sapiens

<400> 250

Pro Glu Asp Ser Ser Thr Pro Glu Glu Met Pro Pro Glu Pro Pro 1 5 10 15

Glu

<210> 251

<211> 389

<212> PRT

<213> Homo sapiens

<400> 251

Phe Gln Ser Trp Ala Gln Pro Leu Phe Leu Leu Ser Cys Asn Arg Lys 1 5 10 15

Thr His Phe Gly Ala Gly Ile Pro Ile Met Ser Val Met Val Val Arg
20 25 30

Lys Lys Val Thr Arg Lys Trp Glu Lys Leu Pro Gly Arg Asn Thr Phe
35 40 45

Cys Cys Asp Gly Arg Val Met Met Ala Arg Gln Lys Gly Ile Phe Tyr 50 55 60

Leu Thr Leu Phe Leu Ile Leu Gly Thr Cys Thr Leu Phe Phe Ala Phe 65 70 75 80

Glu Cys Arg Tyr Leu Ala Val Gln Leu Ser Pro Ala Ile Pro Val Phe 85 90 95

Ala Ala Met Leu Phe Leu Phe Ser Met Ala Thr Leu Leu Arg Thr Ser 100 105 110

Phe Ser Asp Pro Gly Val Ile Pro Arg Ala Leu Pro Asp Glu Ala Ala 115 120 125

Phe Ile Glu Met Glu Ile Glu Ala Thr Asn Gly Ala Val Pro Gln Gly 130 135 140

Gln Arg Pro Pro Pro Arg Ile Lys Asn Phe Gln Ile Asn Asn Gln Ile 145 150 155 160

Val Lys Leu Lys Tyr Cys Tyr Thr Cys Lys Ile Phe Arg Pro Pro Arg 165 170 175

Ala Ser His Cys Ser Ile Cys Asp Asn Cys Val Glu Arg Phe Asp His 180 185 190

His Cys Pro Trp Val Gly Asn Cys Val Gly Lys Arg Asn Tyr Arg Tyr 195 200 205

Phe Tyr Leu Phe Ile Leu Ser Leu Ser Leu Leu Thr Ile Tyr Val Phe 210 215 220

Ala Phe Asn Ile Val Tyr Val Ala Leu Lys Ser Leu Lys Ile Gly Phe 225 230 235 240

Leu Glu Thr Leu Lys Glu Thr Pro Gly Thr Val Leu Glu Val Leu Ile 245 250 255

Cys Phe Phe Thr Leu Trp Ser Val Val Gly Leu Thr Gly Phe His Thr 260 265 270

Phe Leu Val Ala Leu Asn Gln Thr Thr Asn Glu Asp Ile Lys Gly Ser 275 280 285

Trp Thr Gly Lys Asn Arg Val Gln Asn Pro Tyr Ser His Gly Asn Ile 290 295 300

Val Lys Asn Cys Cys Glu Val Leu Cys Gly Pro Leu Pro Pro Ser Val 305 310 315 320

Leu Asp Arg Arg Gly Ile Leu Pro Leu Glu Glu Ser Gly Ser Arg Pro

132 325 330 335

Pro Ser Thr Gln Glu Thr Ser Ser Ser Leu Leu Pro Gln Ser Pro Ala 340 345 350

Pro Thr Glu His Leu Asn Ser Asn Glu Met Pro Glu Asp Ser Ser Thr 355 360 365

Pro Glu Glu Met Pro Pro Pro Glu Pro Pro Glu Pro Pro Gln Glu Ala 370 . 375 380

Ala Glu Ala Glu Lys 385

<210> 252

<211> 184

<212> PRT

<213> Homo sapiens

<400> 252

Met Leu Phe Leu Phe Ser Met Ala Thr Leu Leu Arg Thr Ser Phe Ser 1 5 10 15

Asp Pro Gly Val Ile Pro Arg Ala Leu Pro Asp Glu Ala Ala Phe Ile 20 25 30

Glu Met Glu Ile Glu Ala Thr Asn Gly Ala Val Pro Gln Gly Gln Arg
35 40 45

Pro Pro Pro Arg Ile Lys Asn Phe Gln Ile Asn Asn Gln Ile Val Lys
50 55 60

Leu Lys Tyr Cys Tyr Thr Cys Lys Ile Phe Arg Pro Pro Arg Ala Ser 65 70 75 80

His Cys Ser Ile Cys Asp Asn Cys Val Glu Arg Phe Asp His His Cys 85 90 95

Pro Trp Val Gly Asn Cys Val Gly Lys Arg Asn Tyr Arg Tyr Phe Tyr 100 105 110

Leu Phe Ile Leu Ser Leu Ser Leu Leu Thr Ile Tyr Val Phe Ala Phe 115 120 125

Asn Ile Val Tyr Val Ala Leu Lys Ser Leu Lys Ile Gly Phe Leu Glu 130 135 140

Thr Leu Lys Gly Asn Ser Trp Asn Cys Ser Arg Ser Pro His Leu Leu 145 150 155 160

Leu Tyr Thr Leu Val Arg Arg Gly Thr Asp Trp Ile Ser Tyr Phe Pro 165 170 175

Arg Gly Ser Gln Pro Asp Asn Gln 180

```
133
<211> 8
<212> PRT
<213> Homo sapiens
<400> 253
Tyr Leu Leu Gln Glu Asn Asn Leu
<210> 254
<211> 12
<212> PRT
<213> Homo sapiens
<400> 254
Val Arg Leu Leu Gly Leu Cys Ile Ala Gln Gly His
<210> 255
<211> 188
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (185)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 255
Met Arg Val Gly Arg Arg Pro Lys Ala Gln Arg Val Gln Gly Gln Asn
                                     10
Gly Asn His Ser Ser Asp Ser Glu Gly Ser Phe Ser Leu Leu Cys Leu
                                 25
Gln Leu Phe Ser Lys Phe Ala Val Val Ser Ile Leu Leu Leu Leu Leu
         35
Leu Leu Phe Asn Thr Ser Lys Lys Leu Met Thr Phe Ser Leu Asp
Ser Leu Leu Ser Pro Ile Ser Ile Pro Thr Ala Leu Leu Phe Gly Ser
                     70
 65
Pro Pro Pro Pro Pro Ser His Arg Gly Tyr Gly Val Gly Ser Ala Pro
                 85
Leu Lys Glu Lys Gln Met Lys Glu Leu Val Pro Pro Arg Arg Glu Cys
                                105
Thr Val Gln Gly Gln Pro Trp Gln Gly Pro Ser Leu Pro Gly Pro Ala
        115
Glu Leu Gly His Arg Pro Gly Thr Arg Leu Gly Val Glu Cys Asp Gly
                        135
Glu Trp Cys Pro Arg Ser Cys Phe Trp Glu Leu Leu Gly Pro Pro Tyr
```

150

155

160

Leu Lys Cys Ser Gln Pro Ser Pro Ile Pro Pro Leu Asp Gly Thr Gln 165 170 175

Thr Ser Ala Glu Arg Gly Arg Gly Xaa Ala Leu Lys 180 185

<210> 256

<211> 35

<212> PRT

<213> Homo sapiens

<400> 256

Pro Lys Ala Gln Arg Val Gln Gly Gln Asn Gly Asn His Ser Ser Asp 1 5 10 15

Ser Glu Gly Ser Phe Ser Leu Leu Cys Leu Gln Leu Phe Ser Lys Phe 20 25 30

Ala Val Val

<210> 257

<211> 22

<212> PRT

<213> Homo sapiens

<400> 257

Leu Asp Ser Leu Leu Ser Pro Ile Ser Ile Pro Thr Ala Leu Leu Phe
1 5 10 15

Gly Ser Pro Pro Pro Pro 20

<210> 258

<211> 24

<212> PRT

<213> Homo sapiens

<400> 258

Glu Leu Val Pro Pro Arg Arg Glu Cys Thr Val Gln Gly Gln Pro Trp
1 5 10 15

Gln Gly Pro Ser Leu Pro Gly Pro 20

<210> 259

<211> 25

<212> PRT

<213> Homo sapiens

<400> 259

Arg Leu Gly Val Glu Cys Asp Gly Glu Trp Cys Pro Arg Ser Cys Phe
1 10 15

Trp Glu Leu Leu Gly Pro Pro Tyr Leu 20 25

<210> 260

<211> 9

<212> PRT

<213> Homo sapiens

<400> 260

Trp His Ile Ser Glu Pro Asn Gly Gln
1 5

<210> 261

<211> 36

<212> PRT

<213> Homo sapiens

<400> 261

Arg Pro Ser Arg Leu Arg Arg Leu Lys Ala Pro Phe Ser Ala Trp

1 5 10 15

Lys Thr Arg Leu Ala Gly Ala Lys Gly Gly Leu Ser Val Gly Asp Phe  $20 \hspace{1cm} 25 \hspace{1cm} 30$ 

Arg Lys Val Leu 35

<210> 262

<211> 53

<212> PRT

<213> Homo sapiens

<400> 262

Trp Pro Ser Gly Leu Gly Arg Thr Ser Ser Leu Arg Gly Ser Glu Ala 1 5 10 15

Gln Ser Trp Cys Ser Ser Ala Gly His Gly Pro Pro Pro Ala Leu Gly
20 25 30

Ser Pro Ala Ser Cys Gly Gly Cys Phe Ser Pro Thr Arg Ala Ser Ala 35 40 45

Pro Ala Ala Gly Gly 50

<210> 263

<211> 29

<212> PRT

<213> Homo sapiens

<400> 263

Ser Leu Arg Gly Ser Glu Ala Gln Ser Trp Cys Ser Ser Ala Gly His
1 5 10 15

Gly Pro Pro Pro Ala Leu Gly Ser Pro Ala Ser Cys Gly

<210> 264 <211> 102

<212> PRT

<213> Homo sapiens

<400> 264

Lys Pro His Leu Gly Pro Arg Gly Ser Ile Glu Pro Ser Gln Ala Ser 1 5 10 15

Ser Arg Asn Pro Gly Leu Val Thr Glu Gln Ser Cys Leu Gln Gly Pro 20 25 30

Ser Gly His Arg Ala Trp Ala Gly His His Leu Ser Glu Gly Gln Arg 35 40 45

Leu Arg Ala Gly Ala Ala Gln Gln Val Thr Ala Leu His Gln Leu Trp 50 55 60

Val Leu Pro His His Val Val Ala Ala Phe Pro Pro Pro Gly Pro Gln 65 70 75 80

Leu Gln Gln Leu Val Gly Glu Leu Ser Thr Ala Tyr Ser Lys His Val
85 90 95

Leu Arg His Ala Glu His 100

<210> 265

<211> 30

<212> PRT

<213> Homo sapiens

<400> 265

Ser Arg Asn Pro Gly Leu Val Thr Glu Gln Ser Cys Leu Gln Gly Pro 1 5 10 15

Ser Gly His Arg Ala Trp Ala Gly His His Leu Ser Glu Gly 20 25 30

<210> 266

<211> 33

<212> PRT

<213> Homo sapiens

<40.0> 266

Thr Ala Leu His Gln Leu Trp Val Leu Pro His His Val Val Ala Ala 1 5 10 15

Phe Pro Pro Gly Pro Gln Leu Gln Gln Leu Val Gly Glu Leu Ser 20 25 30

Thr

<210> 267

<211> 241 ...

<212> PRT

<213> Homo sapiens

<400> 267

Arg Pro Ser Arg Leu Arg Arg Leu Lys Ala Pro Phe Ser Ala Trp 1 5 10 15

Lys Thr Arg Leu Ala Gly Ala Lys Gly Gly Leu Ser Val Gly Asp Phe 20 25 30

Arg Lys Val Leu Met Lys Thr Gly Leu Val Leu Val Val Leu Gly His 35 40 45

Val Ser Phe Ile Thr Ala Ala Leu Phe His Gly Thr Val Leu Arg Tyr
50 55 60

Val Gly Thr Pro Gln Asp Ala Val Ala Leu Gln Tyr Cys Val Val Asn 65 70 75 80

Ile Leu Ser Val Thr Ser Ala Ile Val Val Ile Thr Ser Gly Ile Ala 85 90 95

Ala Ile Val Leu Ser Arg Tyr Leu Pro Ser Thr Pro Leu Arg Trp Thr
100 105 110

Val Phe Ser Ser Ser Val Ala Cys Ala Leu Leu Ser Leu Thr Cys Ala 115 120 125

Leu Gly Leu Leu Ala Ser Ile Ala Met Thr Phe Ala Thr Gln Gly Lys 130 135 140

Ala Pro Asp Cys Pro Phe Asp Pro Thr Arg Ile Tyr Ser Ser Leu 165 170 175

Cys Leu Trp Gly Ile Ala Leu Val Leu Cys Val Ala Glu Asn Val Phe 180 185 190

Ala Val Arg Cys Ala Gln Leu Thr His Gln Leu Leu Glu Leu Arg Pro 195 200 . 205

Trp Trp Gly Lys Ser Ser His His Met Met Arg Glu Asn Pro Glu Leu 210 215 220

Val Glu Gly Arg Asp Leu Leu Ser Cys Thr Ser Ser Glu Pro Leu Thr 225 230 235 240

Leu.

<210> 268

<211> 37

<212> PRT

<213> Homo sapiens

<400> 268

Ala Glu Gly Leu Gln Ser Ala Ala Gly Ile Arg Ile Asp Thr Lys Ala 1 5 10 15

Gly Pro Pro Glu Met Leu Lys Pro Leu Trp Lys Ala Ala Val Ala Pro 20 25 30

Thr Trp Pro Cys Ser 35

<210> 269

<211> 525

<212> PRT

<213> Homo sapiens

<400> 269

Gly Pro Ala Val Cys Gly Trp Asn Gln Asp Arg His Gln Gly Arg Thr
1 5 10 15

Pro Arg Asp Ala Glu Ala Ser Leu Glu Ser Ser Ser Gly Pro His Met 20 25 30

Ala Met Leu His Ala Ala Pro Pro Pro Val Gly Gln Arg Gly Trp His
35 40 45

Val Ala Gly Pro Gly Ser Ala Gly Cys Ala Val Ala Gly Leu Arg Gly 50 .55 60

Ser Tyr Leu Pro Pro Val Ala Ser Ala Pro Ser Ser His Leu Gly Pro 65 70 75 80

Gly Ala Ala Gln Gly Arg Ala Gln Val Leu Gly Ala Trp Leu Pro Ala 85 90 95

Gln Leu Gly Ser Pro Trp Lys Gln Arg Ala Arg Gln Gln Arg Asp Ser 100 105 110

Cys Gln Leu Val Leu Val Glu Ser Ile Pro Gln Asp Leu Pro Ser Ala 115 120 125

Ala Gly Ser Pro Ser Ala Gln Pro Leu Gly Gln Ala Trp Leu Gln Leu 130 135 140

Leu Asp Thr Ala Gln Glu Ser Val His Val Ala Ser Tyr Tyr Trp Ser 145 150 155 160

Leu Thr Gly Pro Asp Ile Gly Val Asn Asp Ser Ser Ser Gln Leu Gly
165 170 175

Glu Ala Leu Leu Gln Lys Leu Gln Gln Leu Leu Gly Arg Asn Ile Ser 180 185 190

Leu Ala Val Ala Thr Ser Ser Pro Thr Leu Ala Arg Thr Ser Thr Asp 195 . 200 205

Leu Gln Val Leu Ala Ala Arg Gly Ala His Val Arg Gln Val Pro Met

515

139

210 215 220 Gly Arg Leu Thr Met Gly Val Leu His Ser Lys Phe Trp Val Val Asp 230 235 Gly Arg His Ile Tyr Met Gly Ser Ala Asn Met Asp Trp Arg Ser Leu 245 250 Thr Gln Val Lys Glu Leu Gly Ala Val Ile Tyr Asn Cys Ser His Leu Gly Gln Asp Leu Glu Lys Thr Phe Gln Thr Tyr Trp Val Leu Gly Val 280 Pro Lys Ala Val Leu Pro Lys Thr Trp Pro Gln Asn Phe Ser Ser His 295 300 Phe Asn Arg Phe Gln Pro Phe His Gly Leu Phe Asp Gly Val Pro Thr Thr Ala Tyr Phe Ser Ala Ser Pro Pro Ala Leu Cys Pro Gln Gly Arg 325 Thr Arg Asp Leu Glu Ala Leu Leu Ala Val Met Gly Ser Ala Gln Glu 340 345 ( Phe Ile Tyr Ala Ser Val Met Glu Tyr Phe Pro Thr Thr Arg Phe Ser 360 His Pro Pro Arg Tyr Trp Pro Val Leu Asp Asn Ala Leu Arg Ala Ala 370 375 . 380 Ala Phe Gly Lys Gly Val Arg Val Arg Leu Leu Val Gly Cys Gly Leu 395 Asn Thr Asp Pro Thr Met Phe Pro Tyr Leu Arg Ser Leu Gln Ala Leu 405 410 Ser Asn Pro Ala Ala Asn Val Ser Val Asp Val Lys Val Phe Ile Val 420 -425 Pro Val Gly Asn His Ser Asn Ile Pro Phe Ser Arg Val Asn His Ser 440 445 Lys Phe Met Val Thr Glu Lys Ala Ala Tyr Ile Gly Thr Ser Asn Trp 455 460 Ser Glu Asp Tyr Phe Ser Ser Thr Ala Gly Val Gly Leu Val Val Thr 465 470 475 480 Gln Ser Pro Gly Ala Gln Pro Ala Gly Ala Thr Val Gln Glu Gln Leu 485 490 Arg Gln Leu Phe Glu Arg Asp Trp Ser Ser Arg Tyr Ala Val Gly Leu 500 Asp Gly Gln Ala Pro Gly Gln Asp Cys Val Trp Gln Gly

520

525

<400> 274

```
<210> 270
. <211> 24
 <212> PRT
 <213> Homo sapiens
 <400> 270
 Gln Gly Arg Thr Pro Arg Asp Ala Glu Ala Ser Leu Glu Ser Ser Ser
                                      10
 Gly Pro His Met Ala Met Leu His
              20
 <210> 271
 <211> 23
<212> PRT
 <213> Homo sapiens
<400> 271
Gly Ser Ala Gly Cys Ala Val Ala Gly Leu Arg Gly Ser Tyr Leu Pro
                                      10
Pro Val Ala Ser Ala Pro Ser
             20
<210> 272
<211> 29
<212> PRT
<213> Homo sapiens
<400> 272
Ala Gln Gly Arg Ala Gln Val Leu Gly Ala Trp Leu Pro Ala Gln Leu
                                     10
Gly Ser Pro Trp Lys Gln Arg Ala Arg Gln Gln Arg Asp
             20
<210> 273
<211> 21
<212> PRT
<213> Homo sapiens
<400> 273
Pro Ser Ala Ala Gly Ser Pro Ser Ala Gln Pro Leu Gly Gln Ala Trp
Leu Gln Leu Leu Asp
             20
<210> 274
<211> 26
<212> PRT
<213> Homo sapiens
```

141 Val Ala Ser Tyr Tyr Trp Ser Leu Thr Gly Pro Asp Ile Gly Val Asn 10 Asp Ser Ser Ser Gln Leu Gly Glu Ala Leu 20 <210> 275 <211> 25 <212> PRT <213> Homo sapiens <400> 275 Ser Leu Ala Val Ala Thr Ser Ser Pro Thr Leu Ala Arg Thr Ser Thr **5** 10 Asp Leu Gln Val Leu Ala Ala Arg Gly . 20 25 <210> ·276 <211> 26 <212> PRT <213> Homo sapiens <400> 276 Pro Gln Asn Phe Ser Ser His Phe Asn Arg Phe Gln Pro Phe His Gly Leu Phe Asp Gly Val Pro Thr Thr Ala Tyr 20 25 <210> 277 <211> 27 <212> PRT <213> Homo sapiens <400> 277 Pro Gln Gly Arg Thr Arg Asp Leu Glu Ala Leu Leu Ala Val Met Gly Ser Ala Gln Glu Phe Ile Tyr Ala Ser Val Met 20 25 <210> 278

<211> 24

<212> ∙PRT

<213> Homo sapiens

<400> 278

Ser His Pro Pro Arg Tyr Trp Pro Val Leu Asp Asn Ala Leu Arg Ala . 10

Ala Ala Phe Gly Lys Gly Val Arg 20

<210> 279

<211> 29

<212> PRT ...

<213> Homo sapiens

<400> 279

Thr Asp Pro Thr Met Phe Pro Tyr Leu Arg Ser Leu Gln Ala Leu Ser
1 5 10 15

Asn Pro Ala Ala Asn Val Ser Val Asp Val Lys Val Phe
20 25

<210> 280

<211> 31

<212> PRT

<213> Homo sapiens

<400> 280

Asp Val Lys Val Phe Ile Val Pro Val Gly Asn His Ser Asn Ile Pro 1 5 10 15

Phe Ser Arg Val Asn His Ser Lys Phe Met Val Thr Glu Lys Ala 20 25 30

<210> 281

<211> 24

<212> PRT

<213> Homo sapiens

<400> 281

Gln Leu Arg Gln Leu Phe Glu Arg Asp Trp Ser Ser Arg Tyr Ala Val 1 5 10 15

Gly Leu Asp Gly Gln Ala Pro Gly 20

<210> 282

<211> 257

<212> PRT

<213> Homo sapiens

<400> 282

Ala Glu Gly Leu Gln Ser Ala Ala Gly Ile Arg Ile Asp Thr Lys Ala 1 5 10 15

Gly Pro Pro Glu Met Leu Lys Pro Leu Trp Lys Ala Ala Val Ala Pro 20 25 30

Thr Trp Pro Cys Ser Met Pro Pro Arg Arg Pro Trp Asp Arg Glu Ala . 35 40 45

Gly Thr Leu Gln Val Leu Gly Ala Leu Ala Val Leu Trp Leu Gly Ser
50 60

Val Ala Leu Ile Cys Leu Leu Trp Gln Val Pro Arg Pro Pro Thr Trp 65 70 75 80

143

Gly Gln Val Gln Pro Lys Asp Val Pro Arg Ser Trp Glu His Gly Phe 90 Gln Pro Ser Leu Gly Ala Pro Gly Ser Arg Gly Pro Gly Ser Arg Gly 100 105 Thr Pro Ala Ser Leu Ser Leu Trp Lys Ala Ser Pro Arg Thr Cys His 120 Leu Gln Pro Ala Ala Pro Leu Pro Ser Leu Trp Ala Arg Pro Gly Cys 130 135 Ser Cys Trp Thr Leu Pro Arg Arg Ala Ser Thr Trp Leu His Thr Thr 150 Gly Pro Ser Gln Gly Leu Thr Ser Gly Ser Thr Thr Arg Leu Pro Ser 170 Trp Glu Arg Leu Phe Cys Arg Ser Cys Ser Ser Cys Trp Ala Gly Thr 180 185 Phe Pro Trp Leu Trp Pro Pro Ala Ala Arg His Trp Pro Gly His Pro 200 Pro Thr Cys Arg Phe Trp Leu Pro Glu Val Pro Met Tyr Asp Arg Cys 210 215 Pro Trp Gly Gly Ser Pro Trp Val Phe Cys Thr Pro Asn Ser Gly Leu Trp Met Asp Gly Thr Tyr Thr Trp Ala Val Pro Thr Trp Thr Gly Gly Leu

<210> 283 <211> 10

<212> PRT

<213> Homo sapiens

<400> 283

Lys Gln Pro Arg Gln Leu Phe Asn Ser Leu
1 5 10

<210> .284

<211> 34

<212> PRT

<213> Homo sapiens

<400> 284

Thr Gln Ser Thr Gly Leu Glu Ser Ser Cys Ser Glu Ala Pro Gly Leu
1 5 10 15

Pro Leu Thr Phe Leu Val Ala Ala Thr Gln Arg Ala Leu Glu Trp Thr

Gln Gly

<210> 285

<211> 100

<212> PRT

<213> Homo sapiens

<400> 285

Thr Gln Ser Thr Gly Leu Glu Ser Ser Cys Ser Glu Ala Pro Gly Leu

1 5 10 15

Pro Leu Thr Phe Leu Val Ala Ala Thr Gln Arg Ala Leu Glu Trp Thr 20 25 30

Gln Gly Met Leu Leu Ile Ser Ala Val Gln Val Phe Ile Leu Leu Ser 35 40  $^{\circ}$  45

Pro Ser Phe Tyr Leu Ile Leu Tyr Leu Leu Arg Pro Gly Gly Thr Gly 50 55 60

Arg Gly Leu Glu Pro Ile Cys Pro Ala Ala Glu Trp Gly Gly Trp Arg
65 70 75 80

Asp Gly Tyr Leu Trp Leu Gln Tyr Gln Glu Pro Thr Val Ser Leu Asp
85 90 95

Asn Trp Gly Asn 100

<210> 286

<211> 228

<212> PRT

<213> Homo sapiens

<400> 286

Asp Thr Lys Asn Cys Gly Glu Glu Leu Ala Asn Leu Glu Lys Trp Lys 1 5 10 15

Glu Gln Asn Arg Ala Lys Pro Val His Leu Val Pro Arg Arg Leu Gly
20 25 30

Gly Ser Gln Ser Glu Thr Glu Val Arg Gln Lys Gln Gln Leu Gln Leu 35 40 45

Met Gln Ser Lys Tyr Lys Gln Lys Leu Lys Arg Glu Glu Ser Val Arg 50 55 60

Ile Lys Lys Glu Ala Glu Glu Ala Glu Leu Gln Lys Met Lys Ala Ile 65 70 75 80

Gln Arg Glu Lys Ser Asn Lys Leu Glu Glu Lys Lys Arg Leu Gln Glu 85 90 95

Asn Leu Arg Arg Glu Ala Phe Arg Glu His Gln Gln Tyr Lys Thr Ala 100 105 110 Glu Phe Leu Ser Lys Leu Asn Thr Glu Ser Pro Asp Arg Ser Ala Cys 115 120 125

Gln Ser Ala Val Cys Gly Pro Gln Ser Ser Thr Trp Ala Arg Ser Trp 130 135 140

Ala Tyr Arg Asp Ser Leu Lys Ala Glu Glu Asn Arg Lys Leu Gln Lys 145 150 155 160

Met Lys Asp Glu Gln His Gln Lys Ser Glu Leu Leu Glu Leu Lys Arg 165 170 175

Gln Gln Glu Gln Glu Arg Ala Lys Ile His Gln Thr Glu His Arg 180 185 190

Arg Val Asn Asn Ala Phe Leu Asp Arg Leu Gln Gly Lys Ser Gln Pro 195 200 205

Gly Gly Leu Glu Gln Ser Gly Gly Cys Trp Asn Met Asn Ser Gly Asn 210 215 220

Ser Trp Gly Ile 225

<210> 287

<211> 21

<212> PRT

<213> Homo sapiens

<400> 287

Gly Gln Glu Leu Ala Asn Leu Glu Lys Trp Lys Glu Gln Asn Arg Ala 1 5 10 15

Lys Pro Val His Leu 20

<210> 288

<211> 26

<212> PRT

<213> Homo sapiens

<400> 288

Arg Arg Leu Gly Gly Ser Gln Ser Glu Thr Glu Val Arg Gln Lys Gln 1 5 10 15

Gln Leu Gln Leu Met Gln Ser Lys Tyr Lys 20 25

<210> 289

<211> 21

<212> PRT

<213> Homo sapiens

<400> 289

Glu Glu Ala Glu Leu Gln Lys Met Lys Ala Ile Gln Arg Glu Lys Ser

146 1 5 · 10 15

Asn Lys Leu Glu Glu 20

<210> 290

<211> 22

<212> PRT

<213> Homo sapiens

<400> 290

His Gln Gln Tyr Lys Thr Ala Glu Phe Leu Ser Lys Leu Asn Thr Glu 1 5 10 15

Ser Pro Asp Arg Ser Ala 20

<210> 291

<211> 23

<212> PRT

<213> Homo sapiens

<400> 291

Leu Leu Glu Leu Lys Arg Gln Gln Gln Gln Gln Gln Arg Ala Lys Ile
1 5 10 15

His Gln Thr Glu His Arg Arg 20

<210> 292

<211> 22

<212> PRT

<213> Homo sapiens

<400> 292

Leu Asp Arg Leu Gln Gly Lys Ser Gln Pro Gly Gly Leu Glu Gln Ser

1 10 15

Gly Gly Cys Trp Asn Met 20

<210> 293

<211> 13

<212> PRT

<213> Homo sapiens

<400> 293

Leu Phe Ser Gly Glu Cys Leu Gln Arg Leu Trp Val Arg
1 10

<210> 294

<211> 79

<212> PRT

<213> Homo sapiens





<400> 294

Arg His Glu Leu Val Pro Leu Val Pro Gly Leu Val Asn Ser Glu Val 1 5 10 15

His Asn Glu Asp Gly Arg Asn Gly Asp Val Ser Gln Phe Pro Tyr Val 20 25 30

Glu Phe Thr Gly Arg Asp Ser Val Thr Cys Pro Thr Cys Gln Gly Thr 35 40 45

Gly Arg Ile Pro Arg Gly Gln Glu Asn Gln Leu Val Ala Leu Ile Pro 50 55 60

Tyr Ser Asp Gln Arg Leu Arg Pro Arg Arg Thr Lys Leu Tyr Val
65 75

<210> 295

<211> 23

<212> PRT

<213> Homo sapiens

<400> 295

Pro Gly Leu Val Asn Ser Glu Val His Asn Glu Asp Gly Arg Asn Gly
1 5 10 15

Asp Val Ser Gln Phe Pro Tyr 20

<210> 296

<211> 26

<212> PRT

<213> Homo sapiens

<400> 296

Thr Cys Pro Thr Cys Gln Gly Thr Gly Arg Ile Pro Arg Gly Gln Glu
1 5 10 15

Asn Gln Leu Val Ala Leu Ile Pro Tyr Ser 20 25

<210> 297

<211> 255

<212> PRT

<213> Homo sapiens

<400> 297

Arg His Glu Leu Val Pro Leu Val Pro Gly Leu Val Asn Ser Glu Val 1 5 10 15

His Asn Glu Asp Gly Arg Asn Gly Asp Val Ser Gln Phe Pro Tyr Val 20 25 30

Glu Phe Thr Gly Arg Asp Ser Val Thr Cys Pro Thr Cys Gln Gly Thr 35 40 45 .

		•							148						
Gly	Arg 50	Ile	Pro	Arg	Gly	Gln 55	Glu	Asn	Gln	Leu	Val 60	Ala	Leu	Ile	Pro
Tyr 65	Ser	Asp	Gln	Arg	Leu 70		Pro	Arg	Arg	Thr 75	Lys	Leu	Tyr	Val	Met 80
Ala	Ser	Val	Phe	Val 85	Cys	Leu	Leu	Leu	Ser 90	Gly	Leu	Ala	Val	Phe 95	
Leu	Phe	Pro	Arg 100	Ser	Ile	Asp	Val	Lys 105	Tyr	Ile	Gly	Val	Lys 110	Ser	Ala
Týr	Val	Ser 115	Tyr	Asp	Val	Gln	Lys 120	Arg	Thr	Ile	Tyr	Leu 125	Asn	Ile	Thr
Asn	Thr 130	Leu	Asn	Ile	Thṛ	Asn 135	Asn	Asn	Tyr	Tyr	Ser 140	Val	Glu	Val	Glu
Asn 145	Ile	Thr	Ala	Gln	Val 150	Gln	Phe	Ser	Lys	Thr 155	Val	Ile	Gly	Lys	Ala 160
Arg	Leu	Asn	Asn	Ile 165	Ser	Ile	Ile	Gly	Pro 170	Leu	Asp	Met	Lys	Gln 175	Ile
Asp	Tyr	Thr	Val 180		Thr	Val	Ile	Ala 185	Glu	Glu	Met	Ser	Туг 190	Met	Tyr
Asp	Phe	Cys 195	Thr	Leu	Ile	Ser	Ile 200	Lys	Val	His	Asn	Ile 205	Val	Leu	Met
Met	Gln 210	Val	Thr	Val	Thr	Thr 215	Thr	Tyr	Phe		His 220	Ser	Glu	Gln	Ile
Ser 225	Gln	Glu	Arg	Tyr	Gln 230	Tyr	Val	Asp.	Cys	Gly 235	Arg	Asn	Thr	Thr	Туг 240
Gln	Leu	Gly	Gln	Ser 245	Glu	Tyr	Leu	Asn	Val 250	Leu	Gln	Pro	Gln	Gln 255	
-010	. 20	٠.													

<210> 298

<211> 10

<212> PRT

<213> Homo sapiens

<400> 298

Ala Leu Ser Thr Glu Thr Arg Thr Pro Asp 1 5 10